

INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
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He's So Right!
Pertinent Questions
It Takes Time

Story of the Week

Subscriber Earl Tinklepaugh submits this yarn:

It was just before dark, and the farmer went into his chicken house to separate the roosters from the pullets, so as to ready them for the market in the morning. Putting a temporary screen partition across the middle of the henhouse, eventually he had all the roosters plus a big capon on one side, and the pullets and hens on the other.

One enterprising hen found an opening she could just squeeze through into the rooster side of the partition. It was fun over there, but she knew her place. Next morning she sifted back through this opening into her own side of the chickenry. Immediately the other hens crowded excitedly around her, and one exclaimed:

"Say, it must have been wonderful to have been in there all night with all those young boys."

"Wonderful, nothing," griped the enterprising hen, "that big capon kept me in a corner all night long, and all he did was talk about his operation."

Verse of the Week

At a recent gathering of England's Wholesale Textile Association this revision of Mother Goose laid 'em in the aisles:

"Monday's child shall have a wig,
Tuesday's child free milk to swig;
Wednesday's child shall have free classes,

Thursday's child new pairs of glasses,
Friday's child free school nutrition,
Saturday's child nurse and physician;
But the child that is born on the Sabbath day
Shall have the taxes to pay."

Inspiration of the Week

All versification is not dross. Greg Drumm of Gibson has relayed this poem to thousands of Gibson dealers in recent weeks, and they've loved it:

TODAY IT TAKES A SELLING JOB

There are many kinds of dealers,
And their methods are diverse—
Some of them are better,
And lots of them are worse.

Joe likes deals, promotions, stunts—
Mike says they're the bunk;
Joe thinks ads are what you need,
Mike likes talk and spunk.

Mike and Joe both have their points—
They even make some sales,
But Jim has found a better way,
And, with it, lands the whales.

Jim uses ads and work and talk—
He also uses plans,
He knows it takes a selling job,
Like cakes and pies need pans.

Jim uses all the selling tools
To get folks in his store—
And when he once has got them there
He still keeps using more.

Jim makes more sales than Joe or Mike
He makes them steadier, too.
You have a choice for '50 now
—Which one is most like you?

—GREGORY V. DRUMM,
Gibson Refrigerator Co.
Greenville, Michigan

Wisdom of the Week

"Youth is not a time of life—it is a state of mind. It is not a matter of red cheeks, red lips, and supple knees. It is a temper of the will, a quality of the imagination, a vigor of the emotions; it is a freshness of the deep springs of life. Youth means a temperamental predominance of courage over timidity, of the appetite for adventure over a life of ease. This often exists in a man of 50 more than in a boy of 20. Nobody grows old by merely living a number

(Concluded on Page 14, Column 1)

ISSUED EVERY MONDAY AT 450 W. FORT ST., DETROIT 25, MICHIGAN. ESTABLISHED 1926.

AIR CONDITIONING & REFRIGERATION
THE NEWSPAPER OF THE INDUSTRY

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Distributor Offers Silver Set for Harvester Trade-In

NEW YORK CITY—What is claimed to be the first merchandise trade-in offer in the refrigerator business is currently being promoted by the Bruno-New York, Inc., International Harvester refrigerator distributor here, through its dealers.

The promotion, which is being backed by a strong dealer advertising campaign, offers an 80-piece silver service made by the National Silver Co. and valued at \$118.50 for the customer's old refrigerator, regardless of age or condition.

The offer applies only on a purchase of the new 8.7-cu. ft. IH deluxe refrigerator which retails at \$259.95. It is expected to last only through December and is confined to the New York metropolitan area.

According to Gerald O. Kaye, vice president of the distributorship, the deal was made possible through a special purchase from the National Silver Co., the expense of which is being shared by the distributor and an estimated 210 participating dealers.

Purpose behind the promotion, it was indicated, is to introduce the new refrigerator to the metropolitan area and to stimulate business.

American Air Filter, Nelson May Merge

NEW YORK CITY—A proposal to merge American Air Filter Co., Inc., and Herman Nelson Corp., with the former being the surviving company, will be considered by stockholders of both concerns at a meeting scheduled for Dec. 20, it has been reported by *The Wall Street Journal*.

The newspaper said holders of Herman Nelson stock would get on a share-for-share basis American Air Filter 5% cumulative \$15 par convertible preference stock. Each of these preference shares would be convertible into 1 1/4 shares of American Air Filter common.

A two-thirds vote of the stockholders of each company is required to make the merger effective.

American Air Filter recently reported a net profit of \$527,374, equal to \$1.70 per common share, for the 11 months ended Sept. 30. Net sales in the period totaled \$7,554,766. For the year ended Oct. 31, 1948, the company reported a net profit of \$629,022, or \$2.05 a common share, on net sales of \$8,769,479.

A recent report by Herman Nelson showed that the company's net income for the six months ended Sept. 30 was \$187,949, or \$1.71 a share, with net sales amounting to \$2,495,338. The company reported a net loss of \$6,767 on sales of \$1,564,139 during the like 1948 period.

Ranney Elects Perkins Vice President of Sales

GREENVILLE, Mich. — Ranney Refrigerator Co. here has announced the appointment of O. Robert Perkins as vice president in charge of sales.

Perkins, formerly with Affiliated Retailers, Inc., in charge of major appliances, is well known in the industry from his many years with both Sears-Roebuck and Montgomery Ward in their major appliance departments.

The 1950 Ranney refrigerator program is rapidly moving forward to completion, according to L. W. Ranney, president.

Hearing Set To Weigh Need for Union Elections

WASHINGTON, D. C.—A fact finding hearing to determine whether and when to hold union representation elections in five General Motors Corp. plants, including the Frigidaire plant, will be held on Dec. 19 in Dayton, the National Labor Relations Board announced last week.

The board's action came as a result of petitions by the newly founded International Union of Electrical, Radio & Machine Workers (CIO) for immediate elections in electrical industry plants to determine whether it or the United Electrical, Radio & Machine Workers will act as bargaining agent for the employees.

The latter union was recently expelled from the CIO for allegedly being communist dominated. It is now operating independently and opposing any elections until March 15.

Last week, the Westinghouse Electric Corp. suspended its contract negotiations with the UEW until Dec. 13. A company spokesman indicated that Westinghouse would continue to deal with this union unless an NLRB election determines otherwise.

The General Electric Co. on Dec. 1 suspended its contract offer to the UEW on the basis that the situation presented the company with a serious legal problem that "could only be satisfactorily settled by NLRB elections and fresh certifications to us."

G. H. Pfeif, manager of union relations (Concluded on Page 4, Column 3)

Fire at Sunroc Co. Razes Main Plant

GLEN RIDGE, Pa.—Fire destroyed the main plant and office building of the Sunroc Refrigeration Co. here on Dec. 5 despite the efforts of firemen from 10 neighboring communities, but failed to halt production of the company's water coolers.

Orville C. Morrison, president of the company, watched in below freezing temperatures as the uncontrollable blaze in less than an hour destroyed an estimated \$500,000 (Concluded on Back Page, Column 4)

REMA-RSES To Announce Conference Plans Soon

CHICAGO—Three and possibly four educational conferences and exhibits will be sponsored by Rema during 1950 and 1951, it was announced following a meeting of the Rema-Rses Educational Conference and Relations committee held here Dec. 6.

Plans are still in a formative stage with various cities under consideration. No final decision will be reached until sometime after Jan. 1, explained F. G. Coggin, chairman of Rema's educational committee.

These educational conferences will follow the same general pattern as the four regional conferences held during 1948 and 1949 in San Francisco, Boston, Chicago, and Birmingham, Ala.

Announcement of location and dates of the new series of conferences will be made as soon as arrangements are completed, Coggin said.

The meeting was attended by members of Rema, Rses, and Rewa.

G-E Denies Charge Of Giving Dealers Unfair Discounts

WASHINGTON, D. C.—A House Judiciary Subcommittee on Monopoly Problems heard Charles E. Wilson, president of General Electric Co., defend bigness in business and deny a charge that his company has a sliding scale of discounts for electrical appliance dealers, "not based on their sale of any given product, but on their total products."

The charge was made by Orville C. Morrison, president of Sunroc Refrigeration Co., in earlier testimony before the subcommittee. Morrison claimed that the alleged G-E policy forced dealers to sell G-E products practically at cost in order to build sufficient volume to make a living.

Wilson labeled the charge "an absolute falsehood." He said no branch of his company has a sliding scale of discounts such as Morrison described.

(Morrison also charged that U. S. Army specifications for water coolers were tailored to fit only Westinghouse Electric Corp.'s equipment. Both the (Concluded on Page 4, Column 1)

Refrigeration Sales Co. Names Parsons To Assume Key Post

NEW BRITAIN, Conn.—Landers, Frary & Clark recently announced the resignation of Harry M. Parsons, vice president in charge of major appliance sales, to become effective Dec. 31, 1949.

On the above date Parsons will assume the direction and management of the Refrigeration Sales Co., a subsidiary of Artkraft Mfg. Corp., Lima, Ohio.

Artkraft is producing refrigerators with the Universal trademark, which will be distributed by the Refrigeration Sales Co. to regular Universal major appliance distributors and dealers.

Offices of the Refrigeration Sales Co. are being established here and Parsons will continue to reside in this city.

Bret C. Neece, vice president and general sales manager of Landers, Frary & Clark has announced the appointment of Robert A. Beyers to the position of sales manager of the Universal electric range department. Beyers is presently southwestern regional manager of the company (Concluded on Page 29, Column 1)

Kelvinator To Increase Refrigerator Output

DETROIT—Kelvinator refrigerator production will be increased 25% beginning Monday, Dec. 12, R. A. DeVlieg, vice president of Nash-Kelvinator Corp. in charge of manufacturing, announced last week.

DeVlieg said 1,100 employees would be recalled—1,000 at the company's Grand Rapids plant and 100 in Detroit.

Recent additional shipments of steel from suppliers and continued high demand for Kelvinator refrigerators were responsible for the production step-up, DeVlieg said.

Water Supply Is Critical Problem, ASRE Is Told

Engineers Pledge Help On Conservation Plans; Bergdoll New President

CHICAGO—Something beyond the usual discussions of technical problems and advancement, elections of new officers, etc. came out of the annual meeting of the American Society of Refrigerating Engineers here Dec. 5 to 7 as a conference discussing the problem of the nation's apparently diminishing water supply pointed up a possible crisis for the industry.

Representatives of the American Waterworks Association painted a gloomy picture of the water supply situation, pointing out that great increases in consumption and failure to re-charge sources or to create new pumping and supply facilities were leading to a critical situation in many parts of the country.

Members of the refrigeration and air conditioning industry who spoke at the conference emphasized that they would cooperate in helping to find a solution to the problem, and had already done this through the development and use of water re-use devices such as evaporative condensers and cooling towers. At the same time, they asked that the water suppliers not single them out as a special target in the matter of finding a culprit for the greatly increased use of water.

Nevertheless, the industry will probably be something of a target for those who will press for conservation measures.

Any severe restrictions against water use might mean a boost for the room air conditioner producers (although they are certainly not seeking a boost in their business from the misfortunes of others). At the Room Air Conditioner conference held at the convention it was predicted that window and console conditioners which require no water connections, might be selling at the rate of 350,000 a year by 1953.

Elected president for 1950 in the balloting by mail which preceded this meeting, John G. Bergdoll, Jr., vice president and general works manager of York Corp., received the gavel from Prof. Burgess H. Jennings, retiring president, at the conclusion of the Chicago meeting.

Also inducted into office were Paul (Concluded on Back Page, Column 1)

Foreign Volume Aids Sept. Freezer Sales

NEW YORK CITY—With September home and farm freezer sales by 28 companies reporting to the National Electrical Manufacturers Association falling well below the same month in 1948 and slightly below August, the bright spot in the picture was a sudden spurt in foreign sales.

Foreign sales for September accounted for only 1,014 units out of a total of 31,194. But they represented (Concluded on Page 4, Column 4)

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Biggest Air Conditioning System Installed on Ships Planned for New U.S. Liner

YORK, Pa.—The largest liner ever to be constructed in the United States will be completely air conditioned, utilizing a very extensive York turbo compressor water cooling system, York Corp. has announced here recently.

This will be the biggest air conditioning system ever installed on ship-board, according to John R. Hertzler, vice president and general sales manager of York.

To be christened *S.S. United States*, the ship is being built for the United States Lines by the Newport News Shipbuilding & Dry Dock Co. from basic plans prepared by Gibbs & Co., Inc., the naval architects who spent two years in designing this vessel and preparing the plans and specifications for its construction. It will require a crew of about 1,000 and handle a passenger list of approximately 2,000.

The ship will also be equipped to carry large quantities of refrigerated stores. Cargo spaces are equipped to handle either frozen cargo or higher temperature cargo such as fresh fruits and vegetables.

Condensers and water coolers for the turbo systems are also to be York-built. Condensers for ship's stores refrigeration systems will be York's latest design.

The superliner will cost \$67,350,000 and is scheduled to be completed in August, 1952. She will be powered by steam turbines driving four screws at a normal speed of 28½ knots.

New Type of Christmas Tree Has Lights Frozen on It

LOS ANGELES—Ice Christmas trees—with the decorations and lights frozen right on them—are being sculptured to order here by Sculptor Tommy Sherbloom.

To create his unusual trees, Sherbloom decorates a standard Christmas tree complete with ornaments and lights and then freezes it in a block of ice. When frozen, he trims the ice block to the exact shape of the tree.

When the lights are plugged in, a sparkling crystal effect is created that will last from six to 10 hours, he asserted.

Joseph Singer Joins Airko Engineering Co.

MIAMI, Fla.—Joseph H. Singer, University of Florida graduate in mechanical engineering, is now a partner in Airko Air Conditioning Co., Miami Beach. He will be in charge of sales and engineering for the firm.

Singer was wartime production engineer at the General Electric Co. plants in Lynn, Mass., and Schenectady, N. Y. He returned to Miami in 1947 from the General Electric plant in Bloomfield, N. J.

He is a member of the American Society of Refrigerating Engineers, the American Society of Heating & Ventilating Engineers, and the American Society of Mechanical Engineers.

Lee Equipment Sells Part Of Rebuilding Business To Engineering Firm

HAZEL PARK, Mich.—The Cold-spot and hermetic domestic refrigerator unit rebuilding business which has been operated for several years by Lee Equipment Co., Detroit, has been purchased by Engineering Research Associates, Inc., and is now in full operation at the latter's shop here, it was announced recently by Harvey B. Snyder, president of Engineering Research.

Snyder said the purchase included machines, tools, and records formerly belonging to Lee.

Al Blecker, who, for some time, has handled the major portion of the actual work of rebuilding the units for Lee Equipment, will perform the same duty for ERA, according to Snyder. He added that his firm will do wholesale work only.

Lee Equipment will continue to rebuild commercial and domestic refrigeration compressors (other than those noted above) at its new location, 835 Holden Ave., Detroit, it was pointed out.

Engineering Research, which has complete machine shop facilities, will rebuild both open-type and hermetic domestic refrigerator units, specializing in "Coldspots," Snyder explained. He said a unit pickup and delivery service is now being developed for the Detroit area.

The rebuilding service will be operated by the company in addition to its regular engineering and manufacturing business, which was incorporated in 1937. ERA's plant is located at 3475 East Nine Mile Rd., Hazel Park.

Machine Leaves Barkeep with Mixed Emotions

Bartender Joseph Gallo isn't quite sure how he feels about this refrigerated barkeep with which Marion James mixes herself a Scotch and soda merely by pressing buttons. The machine was introduced at the National Automatic Merchandising Association convention held Nov. 27-30 in Atlantic City.



Refrigerated Drink Mixer Designed To Ease Rush Periods In Bars

ATLANTIC CITY, N. J.—An automatic refrigerated bartender that serves a straight shot, highballs, or fancy drinks at the push of a button was introduced here recently to delegates attending the four-day convention of the National Automatic Merchandising Association.

The machine, the latest invention of two ex-G.I.'s who, shortly after the Army, hit the jackpot with an automatic coffee dispensing machine, is about 5 ft. high, is made of stainless steel, has leather upholstered sides.

It does everything except offer fatherly advice, said its inventors, Lloyd Rudd and K. C. (Cy) Melikian, both 29, now of Rudd-Melikian, Inc., 1947 N. Howard St., Philadelphia.

The robot bartender, said Melikian, probably has a future in clubs, private homes, and in service bars as a peak-hour aid to the flesh-and-blood variety.

Melikian, who said the machine was put together in just a week (standard parts from the company's coffee machine, known as Kwik-Kafe, were used), explained that the machine was conceived as a handy device for convention-time entertaining in hotel rooms.

The machine can be made to operate with coins, even to return change.

Melikian explained that you get out of the machine what you put into it. It was loaded with rye, Scotch, soda, and ginger ale for a mix.

The push-button bartender is flanked on one side with a paper-cup dispenser and on the other with an ice container. You step right up and help yourself.

Once it is loaded the unit is self-contained. It makes its own soda, has a capacity for 500 cups of ginger ale. It will take a gallon and a half of liquor—in whatever form is desired.

The buttons across the front of the machine are labeled "Rye," "Scotch," "Gingerale," "Soda."

The unit needs no plumbing connection. It has an auxiliary tank for water (with which to make soda). It has a refrigeration unit which keeps both the ginger ale and soda cool.

On casters, the robot bartender may be pushed from room to room wherever it is needed.

N. Y. Legislature To Sift Unfair Trade Methods

NEW YORK CITY—A non-partisan committee drawn from both houses of the New York state legislature will start its investigations of unfair trade practices early this month, Assemblyman Irwin Steingut, committee chairman, announced recently.

At its initial closed session, Steingut declared, the committee will study information provided by investigators and researchers and decide whether or not to hold public hearings.

Unless the committee decides that there are real abuses existing and the public is being imposed upon, no recommendations will be made, he said.

The committee, he indicated, intends to look into such practices as leading the consumer to believe he is getting merchandise at substantially less than list price when he is not, depriving the consumer of services he has a right to expect without compensating advantages, fake wholesaling, discount houses, and industrial selling.

Antique Shop Finds Air Cooling Is Necessary 'Modern Touch'

NEW YORK CITY—Antique collectors will be able to do their browsing in the Lyons-Joseph shop at 759 Third Ave. here in air conditioned comfort next summer.

That store, operated by Louis Lyons and Paul Joseph, was recently conditioned with a General Electric air conditioner installed by the Owners & Tenants Electric Co., Inc., local G-E air conditioning dealer.

Lyons explained that he had the store air conditioned because the average antique buyer literally takes hours to examine an article which he might want for his home or collection.

A \$3,000 glass paper weight made by an Italian craftsman about 1800, for instance, is not bought in a minute.

It is essential, Lyons stated, to keep the potential buyer in the store as long as possible and to make him comfortable. This has been difficult in the past during New York City's hot humid summers with the noisy and dirty Third Ave. elevated train rumbling past at frequent intervals.

Electrical Sheet Steel Rise May Affect Small Motor Prices

PITTSBURGH—A price increase of \$35 per ton on all grades of electrical sheet steel—used in motors and transformers—was announced recently by Mark Follansbee, president of the Follansbee Steel Corp. here.

Follansbee indicated that this price jump may be reflected in increased prices for such items as fractional horsepower motors and the equipment in which they are used.

152 More Air Conditioners Set for St. Louis Hotel

ST. LOUIS—Robert B. Stocking, manager of the Hotel Sheraton, has announced that 152 more air conditioning units will be installed in the hotel at a cost of approximately \$100,000. General Electric Corp. has the contract.

Stocking said air conditioning of the hotel started several months ago, when a \$150,000 contract was awarded.

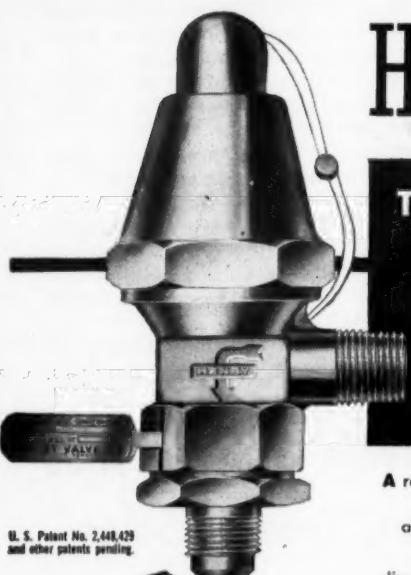
The new project will complete the work in 80% of the guest rooms of the hotel and 75% of banquet rooms.

Commercial Firm Established In Alabama by Shook & Fletcher

MONTGOMERY, Ala.—Shook & Fletcher Supply Co. has just opened for business at 415 Bell St. The firm, of which James F. Luquire is general manager, offers engineering, installation, and service of the Carrier line of air conditioning, heating, and refrigeration, commercial and residential.



STOP Your Freon Losses



HENRY NOW GIVES YOU COMPLETE RELIEF DEVICE PROTECTION ON ANY SIZE REFRIGERATION OR AIR CONDITIONING UNIT

TYPE 545
Super DIAPHRAGM RELIEF VALVE
With Built-in Replaceable Rupture Disc Cartridge in Outlet Port

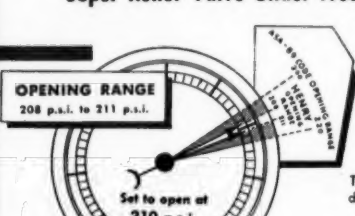
A replaceable rupture disc cartridge is built into the outlet port of the valve and provides additional protection against loss of freon.

This valve design permits locating and sealing the rupture disc directly in the outlet port, since any pressure built up between valve seat and rupture disc, due to momentary over-pressure, will aid rather than retard opening of the valve. Furthermore, the rupture disc can be replaced without removal of the valve.

The use of this valve meets the requirements of paragraph U-10(b) of the A.S.M.E. Unfired Pressure Vessels Code which permits the use of a rupture disc at the outlet port of a relief valve.

PERFORMANCE of Type 545

Super Relief Valve Under Freon Service



The amount of deviation from set pressure under ASA-B9 Code for Relief Valves is $\pm 5\%$. The Henry Deviation of only 1% has set a new standard for performance in the refrigeration and air conditioning industry due to its diaphragm type of construction and controlled cushioned seating.

MAXIMUM DEVIATION FROM SET PRESSURE ONLY

1%

CLOSING RANGE 203 p.s.i. to 205 p.s.i.

Set to open at 210 p.s.i.

MAXIMUM DEVIATION FROM SET PRESSURE 3.3%

HENRY "SENTRY" OVER-PRESSURE UNLOADERS

REPLACEABLE CARTRIDGE TYPE



THE HENRY REPLACEABLE RUPTURE DISC CARTRIDGE

For Type 545 Diaphragm Relief Valve and Type 553 "Sentry" Over-pressure Unloader

The fragile rupture disc is fully sealed and protected—reducing possibility of damage to a minimum. Replaceable rupture disc cartridge can be easily installed without removal of valve from the line. Available in all standard relief pressures from your jobber at nominal cost.

"THROW-AWAY" TYPE



Types 551 and 552 Over-pressure Unloaders are "throw-away" types since they can not be reserved after rupture. They are primarily designed for use on small units. These over-pressure unloaders are recommended for use instead of fusible plugs because of their greater dependability.

Write FOR BULLETINS AND ENGINEERING DATA

SOLD BY LEADING JOBBERS

HENRY VALVE COMPANY

MELROSE PARK, ILLINOIS (Chicago Suburb) • Cable: HEVALCO, MELROSE PARK, ILLINOIS



VALVES, DRIERS, STRAINERS, CONTROL DEVICES, ACCESSORIES FOR REFRIGERATION, AIR CONDITIONING, INDUSTRIAL APPLICATIONS

Products Worth \$125,000 To Be Displayed Mar. 1-3 At Charleston Exposition

CHARLESTON, S. C.—The Electric League of Charleston will sponsor its second annual exposition next March 1-3, it was announced by W. H. Barnwell, chairman of the committee in charge of arrangements.

Exhibits of more than \$125,000 worth of commercial and domestic electrical appliances will be displayed by more than 20 merchants," Barnwell said. "The exposition will be free to the public.

"We estimate that more than 500 different appliances will be on display," he continued. "Commercial dealers will exhibit show cases, walk-in refrigerators, and other large appliances. Rural electrical devices will also be displayed by the South Carolina Power Co. All exhibits will be of the latest 1950 models."

Other members of the committee in charge of arrangements, in addition to Chairman Barnwell, include,

W. E. Amos, E. W. McCall, Leon P. Patat, W. L. Hilton, and J. F. Musgrove. All are members of the Electric League of Charleston.

The league's first annual exposition, held in March, 1949, drew over 10,000 persons.

New Market Has Air-Cooled Cutting Room, 5 Walk-Ins, Display Cases Galore

ERIE, Pa.—A streamlined self-service meat department in the newly opened Loblaw supermarket in East Erie Plaza features specially installed, air conditioned, and refrigerated meat-cutting rooms.

In addition to the meat-cutting room where pre-packaged meats are prepared, there are five independently refrigerated rooms where meats, dairy products, and other perishables are stored.

The more than 12,000 sq. ft. of floor space in the market includes numerous other refrigerated self-service cases, such as dairy products and frozen foods.

Gov't Report on Marketing of Frozen Foods Cites Inadequate Storage, Distribution Facilities as Basic Problems of Industry

WASHINGTON, D. C.—Frozen food marketing is described and analyzed in a publication released recently by the U. S. Department of Agriculture's Production and Marketing Administration.

The report entitled, "Marketing Frozen Foods—Facilities and Methods," deals with frozen food storing, transporting, distributing, merchandising, and the role of processing plants, locker plants, and home freezers in the frozen food industry.

The report points out that the marketing of perishable food products in frozen form has grown rapidly, although many basic problems must still be solved if marketing is to be brought to a high level of efficiency.

Among the industry's problems are several centering on facilities. Buildings which were not designed for handling frozen foods are being used for wholesale plants. Many wholesalers do not have an adequate

amount of properly located refrigerated storage space.

According to the report, the system for distributing frozen foods must be made more efficient before substantial increases in business volume can be made. One of the big needs of the industry is low-cost transportation capable of holding frozen commodities at a temperature of zero on long and short hauls.

Because retail stores generally lack freezer storage space, wholesalers must usually deliver to retail outlets in less than case lots. If retail stores

were equipped with freezer storage, the report points out, wholesalers could make larger and fewer deliveries and thus reduce the cost of distribution.

This cost is still relatively high and amounts to a considerable part of the price consumers pay for frozen foods.

As the volume of frozen food business increases, marketing costs should decline, according to the report, which is based on information and data supplied by over 300 wholesale frozen food distributors, an equal number of retail stores, and many other frozen food enterprises throughout the country.

The report also indicates specific needs for additional research in the marketing of frozen foods.

Copies of the report may be secured from the Information Branch, Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

10-Day Gift Carnival Pays Off

CLEVELAND—Watkins appliance store, here, sold a wide variety of appliances by staging a gift carnival, a 10-day promotion during which each customer making a purchase of \$77 or over was given a choice of a cocktail chair or pair of lamps free.

A Koch Model for Every Use . .

AND NOW...

MODEL 5710 for Pre-Packaged Fresh Meats

MODEL 110 Double Duty Display Case

MODEL 306 3 Refrigerated Shelves

MODEL 868 One of Three Koch Walk-In Coolers

MODEL 8218 18-Case Beverage Cooler

MODEL 3508 For Beer Display and Storage

MODEL 3865 Dough Retarding Refrigerator

MODEL 3865 With Glass or Solid Doors

MODEL 4725 Stainless Steel Refrigerator

MODEL 108 8-ft. long Display Case

MODEL 5710 Open Front Dairy Case

MODEL 2110 10-ft. Top Display Case

MODEL 3508 Wall Type Dairy Case

MODEL 112 Also Available in Top Display Model

MODEL 3842 42-cu. ft. Reach-In Refrigerator

MODEL 1106 Self-Contained Display Case

MODEL 5810 Self-Service Produce Case

MODEL 106 The 6-ft. Double Duty Model

MODEL 8330 Self-Contained Beverage Cooler

MODEL 4821 25-cu. ft. Refrigerator

MODEL 1407 Frozen Food Display Case

Write Today for Details
On the Complete Koch Line

Some Attractive Territories
Are Still Available

The many models pictured here give just an idea of the scope and variety of the KOCH line. In each of these diverse refrigerated products, there is one feature possessed in common: Sales Appeal! Design is functional, combining practical features with beauty. Specifications and hidden features crystallize and emphasize the ideas of durability and dependability promoted by Koch for nearly 67 years.

KOCH Equipment is built with countless practical features which assure economical and dependable operation. There are models for almost every commercial refrigerator need. Display cases for service and self-service use . . . reach-in refrigerators . . . beverage coolers. There is no question. KOCH is the line of least resistance . . . the refrigerator line that will earn profits for you for years and years.

KOCH Refrigerators
North Kansas City 16, Mo. SINCE 1883

G-E Discounts --

(Concluded from Page 1, Column 4)
Army and Westinghouse denied that this was so.

(Last week, Morrison denied a Washington report that Sunroc would do no more business with the Government because the Army Quartermaster Corps awarded a water-cooler contract to Westinghouse despite his charge. He explained that the company had withdrawn only as an "acceptor" of Government standards covering water coolers.

(The stated purpose of the U. S. Bureau of Standards, he said, "is to establish uniform methods of test and rating, and to recommend size designations." In the case of the coolers, however, the standards have the effect of "spelling out a quality ceiling, rather than a floor," he stated. "To this we are unalterably opposed, as we are to anything requiring us to build below the best we know how and are prepared to build.")

In defending big business, Wilson said that its benefits come particularly in the development and marketing of new products to fill new needs and in increasing production to meet ever-increasing demand.

By way of example, he related General Electric's experience in pioneering the development of a garbage disposer. He recalled that about \$90,000 in laboratory services was spent on the unit from 1931, when work was first started on it, until 1935, when it was turned over to the appliance department.

In that year, Wilson said, the company sold 235 "Disposalls" at a loss of \$9,000. Annual losses on the unit up to 1941 were given as \$46,000

(1946), \$150,000 (1937), \$56,000 (1938), \$32,000 (1939), and \$17,000 (1940).

The first gain on the appliance, \$40,000, came in 1941, he testified. In 1942, the subcommittee was told, a loss of \$226,000 was recorded when production was halted and it became necessary to write off inventory and make reassignments of company personnel.

Production was resumed in 1946, Wilson stated, and that year the company lost \$424,000 on the "Disposall." In 1947, a profit was shown for the first time, he further indicated.

Since then, he pointed out, G-E has been making enough profit to have reduced the net over-all loss to \$239,000. He added:

"Within another year of normal operations, 19 years after the commencement of our research on the product, and 15 years after its introduction on the market, after having produced and sold over a quarter of a million Disposall units, we will, for the first time, be able to show an over-all profit."

Wilson told the subcommittee that G-E has been granting licenses on the unit liberally. Fourteen other companies—eight of them licensed by G-E—are now selling competitive garbage disposal units, he said, noting that the industry is now grossing an estimated \$6 million annually on this one product.

This illustration shows, Wilson declared, how essential large companies are in furnishing the basic scientific research and the financial investment needed to develop new products. Because of this pioneering, he asserted, whole new industries, with hundreds and thousands of small business units active in them, have developed and prospered.

Union Hearing Set--

(Concluded from Page 1, Column 3)
tions for the company, wrote the union a letter explaining General Electric's position and pointed out that in the opinion of its legal counsel "the company would be committing an unfair labor practice, if, with this representations question pending before the NLRB, we consummated an agreement in accordance with our Oct. 20 offer."

Withdrawal of the offer, however, was considered anti-climactic in that the union long ago had rejected it.

The IUE-CIO, before adjourning its founding convention in Philadelphia a short time ago, approved a declaration by James B. Carey, chairman of the administrative committee temporarily running the union's affairs, in which he recommended that they ignore court injunctions that would hamper the union's organizing activities.

The convention also approved a resolution that authorized the administrative committee to continue functioning until a constitutional convention is called. This constitutional convention is scheduled to meet before September and probably sometime next spring or summer. At that time permanent officers and an executive board are expected to be elected.

In New York City, a court ruling that local 450 of the UEW, representing workers at the Sperry Gyroscope Co., had the constitutional right to secede from the UEW and take its funds with it was lauded by CIO representatives as "a most important judicial clarification of the right of UE members to liberate themselves from communist tyranny."

Foreign Freezer Sales Rise, Domestic Drop

Summary for September and First Nine Months, 1949

Electric Farm and Home Freezers—Complete—Sales by Sizes—Units

Farm and home freezers complete with high and low side and cabinet, where 50% or more of the net cabinet capacity is designed for the freezing and/or storage of frozen food.

SEPTEMBER (28 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. 4.9 cu. ft. and under..	2,194	.....	135	2,329
2. 5.0 to 6.9 cu. ft.	5,060	.....	20	5,080
3. 7.0 to 8.9 cu. ft.	8,531	.....	814	9,345
4. 9.0 to 10.9 cu. ft.	1,507	.....	14	1,521
5. 11.0 to 12.9 cu. ft.	6,829	.....	9	6,838
6. 13.0 to 16.9 cu. ft.	4,352	.....	13	4,365
7. 17.0 to 20.9 cu. ft.	1,375	.....	3	1,378
8. 21.0 to 29.9 cu. ft.	209	.....	6	215
9. 30.0 to 39.9 cu. ft.	117	.....	.....	117
10. 40.0 to 49.9 cu. ft.	2	.....	.....	2
11. 50.0 to 59.9 cu. ft. ....	.....	.....	.....	.....
12. 60.0 cu. ft. and over..	4	.....	.....	4
Total All Models	30,180	.....	1,014	31,194
13. Total Upright Models (included in above) ..	811	.....	.....	811

FIRST NINE MONTHS (27-31 Companies)

Sizes	Domestic (48 States and D. C.)	Canadian	Other Foreign	Total
1. 4.9 cu. ft. and under..	15,207	.....	1,014	16,221
2. 5.0 to 6.9 cu. ft.	33,205	.....	642	33,847
3. 7.0 to 8.9 cu. ft.	59,619	1	1,528	61,148
4. 9.0 to 10.9 cu. ft.	18,222	.....	67	18,289
5. 11.0 to 12.9 cu. ft.	53,728	.....	119	53,847
6. 13.0 to 16.9 cu. ft.	37,829	.....	98	37,927
7. 17.0 to 20.9 cu. ft.	20,952	.....	48	21,000
8. 21.0 to 29.9 cu. ft.	1,343	.....	6	1,349
9. 30.0 to 39.9 cu. ft.	1,849	.....	.....	1,849
10. 40.0 to 49.9 cu. ft.	16	.....	.....	16
11. 50.0 to 59.9 cu. ft.	1	.....	.....	1
12. 60.0 cu. ft. and over..	36	.....	.....	36
Total All Models	242,007	1	3,522	245,530
13. Total Upright Models (included in above) ..	10,802	.....	38	10,840

Participating companies: Avco Mfg. Corp.; August G. Barkow Mfg. Co.; Beatty Mfg. Co.; Ben-Hur Mfg. Co.; Brewer-Titchener Corp.; Carrier Corp.; The Coolerator Co.; Deepfreeze Div., Motor Products Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint, Inc.; International Harvester Co.; Kelvinator Div., Nash-Kelvinator Corp.; Masterfreez Home Locker Mfg. Co.; The Maytag Co.; Norge Div., Borg-Warner Corp.; Oregon Refrigerator Co.; Portable Elevator Mfg. Co.; Revco, Inc.; Sanitary Refrigerator Co.; Schaefer, Inc.; Emil Steinhurst & Sons, Inc.; Sub-Zero Freezer Co., Inc.; Victor Products Corp.; Westinghouse Electric Corp. (in 5-1-49); Wilson Cabinet Co., Inc.; Whiting Corp.; Ace Cabinet Corp. (out 2-1-49); R. H. Bishop Co. (out 1-1-49); Chapman Refr. Sales Co. (out 1-1-49); General Refrigerator Corp. (out 3-1-49); Seeger Refrigerator Co. (out 3-1-49); Stoddard Mfg. Co. (out 4-1-49).

Sept. Freezer Volume --

(Concluded from Page 1, Column 5)
sented a 100% increase over September, 1948 and a 554% increase over August. The month's total further represented about one third of all the units sold abroad in the first nine months of the year.

In fact, this spurt enabled foreign sales for the nine months—3,522 units—to pass the total for the same period last year—3,327 units—when, up to September, they had lagged.

Domestic sales, therefore, accounted for the entire drop from 35,384 freezers sold in August and 45,733 sold in September of last year.

The nine-month total of from 27 to 31 companies reporting was 245,530 units as compared with 363,132 units for the same period last year when from 34 to 36 companies reported.

Philco Plans January Showing Of Refrigerator, Range Line

PHILADELPHIA — Philco Corp. will introduce its 1950 refrigerators and freezers and a new line of Electromaster electric ranges at its national distributors' mid-winter convention in Chicago next month, the company has announced.

The meeting will be held Jan. 4-6 at the Palmer House. More than 800 are expected to preview the new models and hear about the company's plans for 1950 for all products. Top executives are scheduled to address the convention.

Three 9-Cu. Ft. Refrigerators Introduced by Kalamazoo Stove

DETROIT — Three new 9-cu. ft. refrigerators priced at \$199.50, \$239.95, and \$279.95 have been put on the market by Kalamazoo Stove & Furnace Co., it was reported here. The 1950 models replace two earlier models, a 7.5-cu. ft. unit and a 9-cu. ft. box, which retailed for a price of \$234 and \$299, respectively.

Kretchel Becomes Head of Alabama Appliance Group

BIRMINGHAM, Ala. — William Kretchel, head of the appliance department of Loveman's store, Birmingham, has been elected president of the Jefferson County Retail Appliance Dealers Association. He succeeds L. J. Griffiths.

Hendon Ellis of Ellis Appliance & Sales Co., Ensley, was elected vice president, and Mrs. Lula Grace of Bryant Electric Co., Homewood, was named secretary-treasurer.

Spitzer Gets Key Post In G-E Range & Water Heater Division

CHICAGO — A. L. Spitzer has been appointed supervisor of the commercial service section of General Electric Co.'s range and water heater divisions here. He was formerly assistant to the sales manager of Hotpoint, Inc.

Pinnacle's complete line of Refrigerators provides a real sales opportunity and Big Profits for You!

- BUTCHER CASES
- DELICATESSEN CASES
- REACH-IN BOXES
- FISH AND POULTRY CASES
- DAIRY WALL BOXES
- DOUGH RETARDER BOXES
- WALK-IN COOLERS

FREE FOLDERS OF COMPLETE LINE
Export Dept.:
39 Broadway,
New York

Pinnacle
EQUIPMENT CORPORATION
FLEETWOOD, PENNSYLVANIA

"Change course—aye, aye, sir!"



In today's highly competitive appliance market, it's not always possible for a manufacturer to hold to the course of action and product specifications originally plotted.

Very often after he places an order with a supplier, unforeseen developments pop up to necessitate changes in design or quantity. Frequently schedules must be modified on short notice to meet new requirements.

So, as part of developing an organization that places customer satisfaction above all else, Delco Products has acquired the faculty of working under pressure to take care of last minute changes in specifications and schedules.

It's this flexibility—together with modern facilities, sound experience, and a thorough appreciation of all problems confronting a manufacturer—that makes Delco Products first choice of those who need quality appliance motors in volume.



DELCO MOTORS
DELCO PRODUCTS

Division of General Motors Corporation, Dayton, Ohio

Sales Offices: CHICAGO • CINCINNATI • CLEVELAND • DETROIT • HARTFORD

INSECT DAMAGE

Refrigeration Will Help
Study of Entomology

LINCOLN, Neb.—Constant temperature and cold storage rooms will be features of a new insectary to be constructed by the University of Nebraska on the College of Agriculture campus here.

The new building will provide research facilities for the entomology department to study insect damage in Nebraska, which runs into tens of millions of dollars each year. The U-shaped building will include a brick "head house," two laboratories, and three offices, while in the basement will be insect production space.

Salient features of the insect production space will be a constant temperature and humidity room and a cold storage vault of walk-in dimensions. The one-story-and-basement structure also will have two wings including a six-section green house and a combination screen house and machine shop.

The building is being constructed from funds allotted the university from a special state building fund. Plans and specifications have been prepared by Meginnis & Schaumburg, Lincoln architects. Separate bids will be required for the air conditioning and refrigeration installation which will include plumbing, heating, and ventilation. General contract and electric wiring bids also will be separate.

Brown Is Manager of G-E Air Conditioning Plant

BLOOMFIELD, N. J.—Leo F. Brown has been appointed plant manager of the air conditioning equipment plant of General Electric Co.'s Air Conditioning Department, it was announced recently by F. J. Van Poppelen, manager of manufacturing.

Prior to his appointment, Brown was associated with the Houdaille-Hershey Corp., serving as manager of the Detroit plant from September, 1948, and the Jackson, Mich., plant from 1946 to 1948.

Brown was graduated from the University of Michigan with a B.S.E. degree in electrical engineering in 1932, and a B.S.E. in mechanical engineering the following year. He subsequently served in plant managerial positions for various automobile manufacturing concerns until 1944.

He is a member of the Engineering Society of Detroit and the National Society of Professional Engineers.

New Omaha Commercial Dealer Also To Operate In Wyoming

OMAHA, Neb.—Olsen Brothers of Omaha, dealer in air conditioning, heating, and ventilating equipment and supplies, has taken out a Wyoming charter naming Clarence Swainson of Cheyenne as resident agent. The article of incorporation filed with the Wyoming secretary of state designated \$5,000 of the Omaha firm's \$200,000 capital for use in Wyoming.

Nash-Kelvinator Earns \$6.04 Per Share for Fiscal Year

DETROIT—Directors of Nash-Kelvinator Corp. have voted a regular dividend of 35 cents per share and a special dividend of 75 cents per share on outstanding capital stock. The dividends are payable Dec. 29 to stock of record at the close of business Dec. 12.

The corporation announced net earnings after taxes and all charges of \$26,229,930.91, amounting to \$6.04 per share for the fiscal year ended Sept. 30, 1949.



Nebraska Packing Houses Respond to Drive For Modernization of Storage Facilities

LINCOLN, Neb.—Nebraska packing houses have surpassed all records in the past two years in installing modern refrigerated storage facilities and other equipment promoting sanitation, reports State Veterinarian E. P. Anderson.

As a result, the anticipated five-year program of cleaning up the state's slaughter houses is four-fifths completed with the deadline still three years away.

Anderson said inspectors of the state bureau set out two years ago to enforce a new law which provides fines of \$10 to \$500 for operators interfering with their inspection or failure to observe rules established by the department.

At that time, state records show, only one Nebraska slaughter house held an excellent rating and many were "bad." Today, 15 are rated excellent and only six of the remaining 280 are not classified as "good" or better.

Approximately 95% of the operators are cooperative, the state veterinarian stated. The two department fieldmen have made about 1,500 unannounced inspections so far in 1949, and these calls are intended primarily to assist owners in improving their plants.

This is a "locker plant age," Anderson said, and the new program means the farmer can deliver an animal for slaughter and store the meat, confident there will be no danger of spoilage.

West Coast Freezing, Packing Plant Is Destroyed by Blaze

DELANO, Calif.—The Pagiarulo Freezing and Packing Plant near here was completely destroyed by fire recently, with a loss estimated at \$250,000, but \$50,000 worth of machinery, with lumber, outbuildings, and water towers, was saved.

Maintain Store Adv't, Sales Promotion Post Goes to H. A. Philbrick

BOSTON—Herbert A. Philbrick has been appointed advertising and sales promotion manager of the Maintain Store Engineering Service, 661 Beacon St., here, store planning consultants and manufacturer of distinctive store equipment, it is announced by Russ Maintain, president.

Philbrick was formerly assistant advertising director of the M & P Theaters (Paramount Pictures) in New England, and more recently assistant advertising director of the American Theater Corp. In his new post he will supervise the national advertising of 250 Maintain store planning engineers projected for the major trading centers in the United States.

The Maintain Store Engineering Service, manufacturer of stainless steel price-lock tag moulding, super-speed check out counters and drug, bakery, liquor, and candy display

equipment, recently announced a new line of boltless quick-change shelving and canopy lighting. Needing only five minutes to erect a complete unit of the new Maintain shelving, the shelves are fully adjustable to fit large or small merchandise, and only 10 seconds are required to change shelf locations. In addition, the shelving can be added or withdrawn as required.

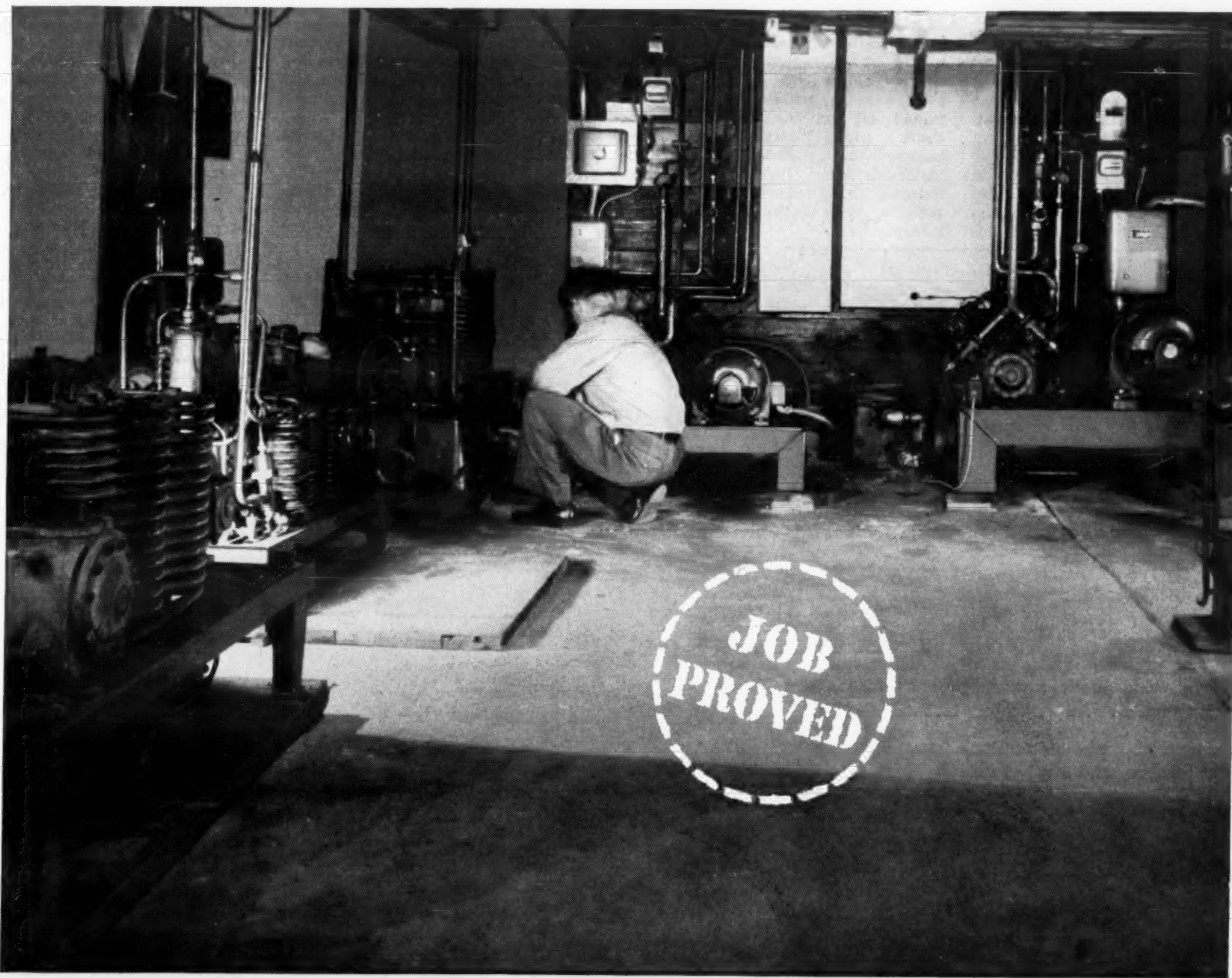
The canopy lighting eliminates the necessity for ceiling lights.

Air Conditioning Installed In North Carolina Clothing Mill

MT. GILEAD, N. C.—The air conditioning system for the new \$2,000,000 plant of United Mills Corp. here, was installed by White & Co., Inc., 1440 South Tryon St., Charlotte.

Morris Richter, founder and president of United Mills Corp., said the new building is of modern type construction, all on one floor, is lighted, air conditioned, and equipped in every department with the best machinery.

Described as the largest and most modern plant of its kind, it will employ 1,000 persons when operating at full capacity.



SUNISO HELPS HOLD CUSTOMER 15 YEARS

Refrigeration Equipment Distributor Makes Steady Customer
As Result of Performance of Suniso-Charged Compressor

When a wholesale processor of pork products started in business he bought a single 1 hp compressor. The refrigeration equipment distributor who sold it to him charged it with Suniso. The first compressor performed so well that as business expanded and more equipment became necessary, the processor continued to buy from his original supplier.

In 15 years, unit after unit has been added. Today the processor has 10 compressors ranging as high

as 10 hp, used in a great variety of cooling operations, and all charged with Suniso. There has not been a single failure due to lubrication—even in summer, when the equipment is subjected to heavy loads, and the temperature of the meat must be closely controlled.

This is but one instance among many that indicate the profitable results to be expected from the use of the right "Job Proved" Suniso Oils in refrigeration and in air-conditioning. It is performance such

as this that has made them the predominant choice of original equipment manufacturers.

The different grades of Suniso Oils have extremely low pour-points and low wax-separation points. All have exceptionally high dielectric strength and high resistance to chemical change when mixed with Freon or any other modern refrigerant. Ask your Suniso jobber for a free copy of the illustrated booklet "Lubrication of Refrigeration and Air-Conditioning Equipment."

SUN OIL COMPANY • Philadelphia 3, Pa.
In Canada: Sun Oil Company, Ltd.
Toronto and Montreal

SUNISO REFRIGERATION OILS
"JOB PROVED" THROUGHOUT THE INDUSTRY



Jay St. vs. Kay St.**'Jaybird Money Plan' Draws Traffic From 'Main Drag' to Nearby Dealer**

SACRAMENTO, Calif.—The fact that a store is located off the "main drag" where fewer shoppers pass, need not necessarily be a serious handicap, if the retailer will use a little merchandising ingenuity, according to The Electric Center, electrical dealership operated by Manual Joseph at 1020 Jay St., here.

Until mid-1949, The Electric Center found itself one block off the main shopping street in downtown Sacramento, where less than 15% of downtown shopping traffic was likely to pass.

Sacramento has actually two "shopping districts" only a block apart. The "main drag," composed of many nationally-known chain stores, larger department stores, smart specialty shops, etc., is "Kay" St. One block away are smaller local stores on "Jay" St.

Despite the fact that Jay St. is lined with stores carrying nationally-branded merchandise, and in every way solid reputable business firms, traffic, through force of habit, and bus terminal locations, was likely to be focussed on Kay St.

When it became apparent that something unusual was going to be required to bring traffic from Kay St. over to Jay St., Joseph did something about it.

Conferring with other retailers, Joseph helped to develop the "Jay Street Merchant's Plan" which has worked out so successfully in build-

ing additional volume that it has attracted national attention.

Under the plan, to familiarize thousands of Sacramento residents with merchants along Jay St., and to make it likewise "habit" for them to shop on Jay St. as well as Kay St., these merchants have developed the "Jaybird Money Plan."

This consists simply of co-operative newspaper advertising each week in Sacramento newspapers, and the printing up of many thousands of dollars in "Jaybird money," \$1 of which is given to purchasers of merchandise on Jay St., in return for each actual \$1 they spend.

"Jaybird money" which lists on the face the co-operative retailers, is printed in denominations from \$1 to \$50, and features the slogan "Be a Lucky Jaybird—Shop on Jay Street."

The "money" is issued by all co-operating stores, in equal amounts with the actual cash expenditure made by the customers, and is legal tender for an auction held by the Jaybird Merchants' Association every Saturday on radio station KXOA in Sacramento.

The co-operating retailers donate all of the merchandise which is auctioned off on the one-hour radio show, which may range from inexpensive housedresses through children's wear, furniture, electrical fixtures, auto accessories, cutlery, jewelry, office machines, up to power lawnmowers.

To bid in the auction, the listener must utilize only "Jaybird money," telephoning the station during the broadcast, and placing the bid for the item.

The highest bidder with Jaybird money during the program receives the article bid on, and the name and address of the customer is announced while the purchased item is hustled out by one of the member's delivery trucks.

The stunt has worked out very well for the Electrical Center. Where, previously, floor traffic even on Friday and Saturday had been light, the store found itself crowded.

Many customers explained that they had not previously known that so well-stocked an electric store existed only a block away from the main street.

Turnover in every department has increased from 15 to 100% as a result of the Jaybird money plan, according to Joseph. The stunt has proven so successful that it will be continued indefinitely, he said.

Sale for 'Preferred Customers,' Offering Only Moderate Markdowns, Results In Tremendous Turnout, Many Sales

MINNEAPOLIS—Inviting potential refrigerator prospects to take advantage of an annual "preferred customer sale" has proven an excellent means of heavily increasing refrigerator sales for Minneapolis House Furnishing Co., appliance dealership here.

The sale is held for a two-week period, but on only two days of each week does the store actually offer worthwhile markdowns and special attractions for some 32,000 "preferred customers." Included in the

'What's New' Room Will Be Opened

CHICAGO—An innovation for the International Home Furnishings Market to be held at the Merchandise Mart here Jan. 9 to 20—a "What's New Room"—is expected to prove a popular year-round attraction.

The room will be offered by the mart's Housewares and Appliance Association. It will be maintained on the 11th floor.

Each member of the association, comprised of 11th and 14th floor tenants, will display in the room a new item or a product that has some special promotional feature. The products will be changed each month, and buyers are urged to visit the room each time they come to the mart throughout the year.

Kalamazoo Stove Moves To Furniture Mart

CHICAGO—The Chicago regional offices of the Kalamazoo Stove & Furnace Co. will be moved from 612 N. Michigan Ave. to space 512-B in the American Furniture Mart before the start of the January home furnishings market, it was reported here.

Herman Price, in charge of the Chicago region, will have his office there.

Murray Will Exhibit

CHICAGO—The Murray Corp. of America which recently announced its entry into the major appliance field, will occupy space 1124 in the Merchandise Mart.

Fath Manages Contract Sales for Deepfreeze

NORTH CHICAGO, Ill.—Appointment of J. G. Fath as manager, contract sales and statistics, was announced recently by George F. Weisenbach, general sales manager of Deepfreeze Div., Motor Products Corp.

Fath, who had previously served in this department and later became manager, product service operations, was appointed to his new position to replace J. E. Guertin, who resigned.

Refrigerators Top Sales In St. Louis Territory

ST. LOUIS—A composite report of major electrical appliance shipments by 29 distributors to dealers in this area during September was issued recently by the Union Electric Co. here.

The report follows:

Appliances	Sept.	Aug.	Year to Date
Ranges	724	696	5,622
Water heaters	256	344	3,146
Refrigerators	3,338	5,366	41,883
Food freezers	211	285	1,688
Automatic washers	282	363	2,800
Conventional washers	2,046	1,784	14,641
Clothes driers	81	93	658
Ironers	471	424	3,404
Vacuum cleaners	789	670	7,958
Dishwashers	62	58	410

Mfr. Charges 'Unfair' Toastmaster Selling

CHICAGO—Two local retailers were recently charged by the manufacturer with selling Toastmaster toasters at less than the established minimum retail price.

McGraw Electric Co. is seeking through Superior Court here to get \$500 damages from each and injunctions to restrain the Garrick Furniture & Radio Co. and the Wholesalers Outlet from again selling below the minimum fair trade price.

The Garrick firm is specifically charged with selling a \$32.50 toaster at \$26 plus tax. Wholesalers Outlet is said to have sold the same toaster at \$25 plus tax.

You can always depend on



10 hp., Ammonia Unit

General Refrigeration Division

Yates-American Machine Co.,

Beloit, Wis.

Better refrigeration in sight with Bundyweld* Tubing

You'll see at a glance that Bundyweld is the most practical tubing you could possibly choose for your refrigeration tubing needs.

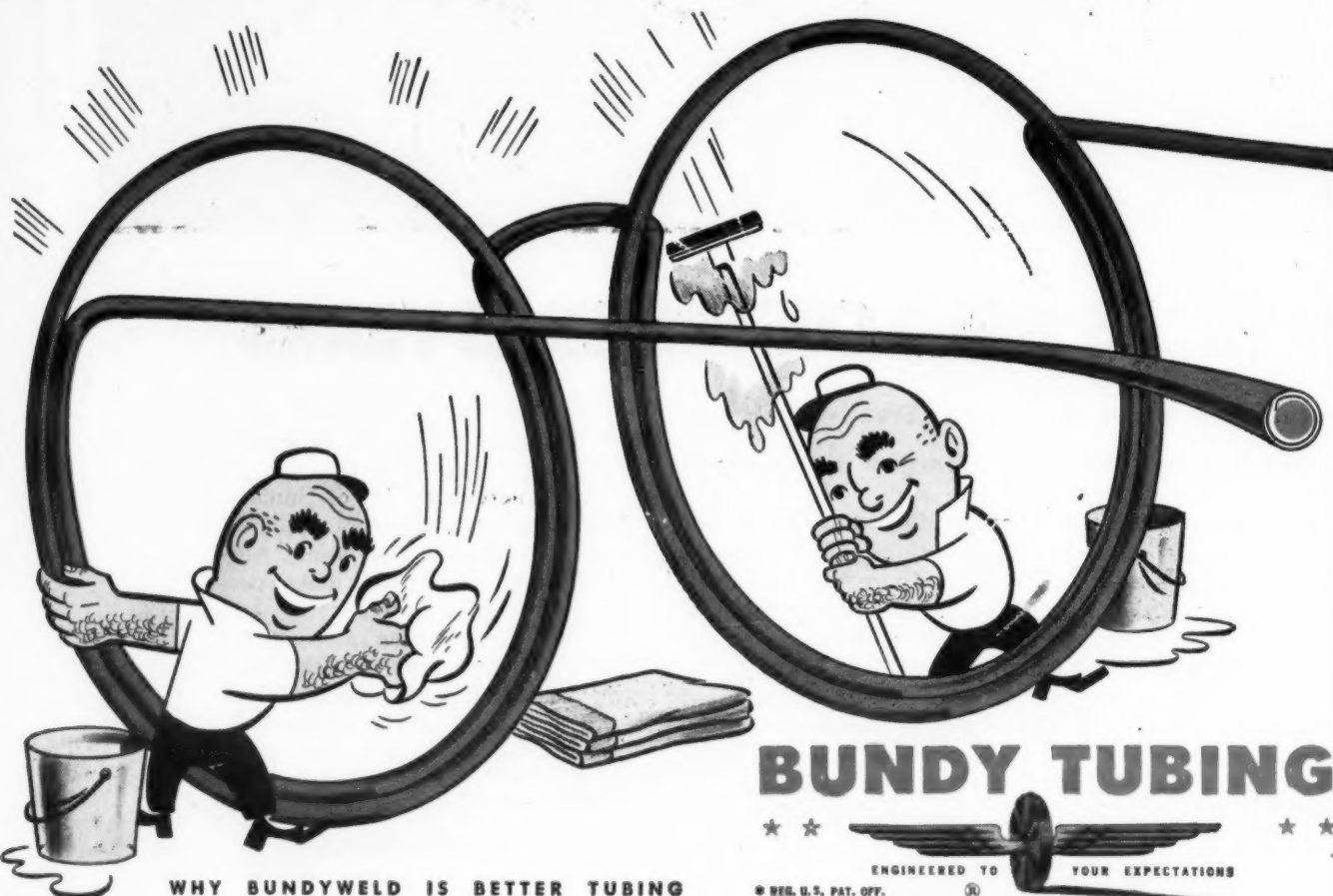
Available in steel, Monel, or nickel, Bundyweld's marked superiority is found in its double-walled construction. Made from a single strip of metal, double-wrapped, and copper-brazed at all points of wall contact, Bundyweld offers extra-strong yet thin walls for faster cooling.

Always held to close dimensions, Bundyweld is easy to cut, join, or bend to short radius turns without

fear of collapsing. An ideal tubing for compressor lines, connecting tubes, and condenser and evaporator coils, Bundyweld is available at a surprisingly low cost.

Used in over 85% of all refrigeration equipment manufactured, Bundyweld may be the answer to your tubing needs.

Read the story of how Bundyweld is made, across the bottom of this page. Then contact your nearest Bundy representative (listed below), or write: Bundy Tubing Company, Detroit 14, Michigan.



BUNDY TUBING

ENGINEERED TO YOUR EXPECTATIONS

REG. U.S. PAT. OFF.

BUNDY TUBING DISTRIBUTORS AND REPRESENTATIVES

Cambridge 42, Mass.: Austin-Hastings Co., Inc., 226 Binney St. • Chattanooga 2, Tenn.: Peirson-Deakins Co., 823-824 Chattanooga Bank Bldg. Chicago 32, Ill.: Lapham-Hickey Co., 3333 W. 47th Place • Elizabeth, New Jersey: A. B. Murray Co., Inc., Post Office Box 476 • Philadelphia 3, Penn.: Ruten & Co., 404 Architects Bldg. • San Francisco 10, Calif.: Pacific Metals Co., Ltd., 3100 19th St. • Seattle 4, Wash.: Eagle Metals Co., 3628 E. Marginal Way • Toronto 5, Ontario, Canada: Alloy Metal Sales, Ltd., 881 Bay St.

BUNDYWELD NICKEL AND MONEL TUBING IS SOLD BY DISTRIBUTORS OF NICKEL AND NICKEL ALLOYS IN PRINCIPAL CITIES.

DON'T LET THESE POTENTIAL SALES GET AWAY FROM YOU!

- FROZEN FOOD
- ICE CREAM
- FISH
- POULTRY
- INDUSTRIAL USES

Recent installation at Burton Sea Food Inc., Chincoteague, Va. Used for Cooling and Preservation of Oysters. Has capacity of 1200 pints, 500 gallons.

Wide Range of Sizes

Available with 6", 8" or 10" Insulation

New Rigid Metalply Construction!

Simple to ERECT, MOVE or ENLARGE!

(Refrigeration Engineering Corp.)

Write for Catalog and Prices

RECO PRODUCTS DIVISION

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Preserving Blood

Experiments Show, That Controlling Temperature of Blood Right After Freezing Minimizes Breakdown of Cell Structure

WASHINGTON, D. C.—Evidence that both frozen and liquid whole blood may best be preserved at a temperature of -3°C . (26.8°F) is indicated in the results of a research project reported recently in *Science*, journal of the American Association for the Advancement of Science.

Although "it is a generally accepted hypothesis that freezing and thawing of red cells results in hemolysis [breakdown of the cell structure]," Max M. Strumia declares that preliminary experiments in 1942 showed that this was not correct under all conditions, even though "alternate freezing and thawing is a procedure commonly employed in the laboratory for the purpose of obtaining hemolysis."

Rate of freezing is not so important as the temperature conditions immediately after freezing, according to the studies that were carried on by Strumia at the John S. Sharpe research laboratory and the laboratory of the Bryn Mawr hospital, Bryn Mawr, Pa.

"When frozen blood is allowed to cool for even a very short period of time at temperatures below -3°C ., rapid and severe hemolysis occurs," Strumia reports.

There is a minimum of breakdown in the cell structure if the whole blood is removed from the cooling bath as soon as it starts to freeze and is then stored at -3°C ., he indicates.

"When whole citrated blood is placed in an air cabinet, cooled at -3°C . and allowed to remain undisturbed, it will remain liquid for an indefinite period of time," adds Strumia.

"Early in our experiments, evidence showed that the type of water crystallization resulting from freezing was not an essential factor in the behavior of red cells," he points out.

"Thus, equally good preservation of red cells was obtained by slow freezing at -3°C ., or by very rapid freezing at -60°C . [-76°F]. In the case of slow freezing, the mass of frozen blood showed formation of large crystals; whereas with fast freezing, the mass of frozen blood appeared very uniform."

Describing the method of fast freezing used in the experiments, Strumia explains that a test tube containing measured quantity of blood is manually rotated in a bath of CO_2 cracked ice.

"Freezing occurred in a few seconds, and the tube containing the solid blood was removed instantly upon solidification and placed in a water bath at 37°C . [98.6°F] to thaw with the aid of agitation."

There was little or no breakdown of cell structure, but he emphasizes that "if frozen blood was allowed to remain in contact with CO_2 ice

for even a few seconds after freezing, massive hemolysis resulted upon thawing."

He also points out that "it is of practical importance to note that even when freezing and thawing of red cells at -3°C . results in some hemolysis, the remaining red cells appear to be undamaged."

"Experiments have shown that regardless of the mode of freezing of blood, rapid thawing at 37°C . in the water bath with agitation is the best method to avoid hemolysis. Results similar to those reported for whole citrated blood may be expected, and have been obtained, with red cells suspended in various media. . . .

"The preservation of blood in the frozen state," he adds, "is of particular interest for the obvious practical advantages which it offers. In all, about 100 specimens of blood have been satisfactorily preserved for varying periods of time up to one month."

"The importance of temperature control for proper preservation of blood in the frozen state is best em-

phasized by the following experiment: 500 ml of whole blood were mixed with 75 ml of chilled anticoagulant solution. Blood was maintained at room temperature for the first 3 hours.

"It was then distributed in 10-ml aliquots in rubber-stoppered, thin-walled test tubes. A tube (#8) was placed in a rapidly circulating water-alcohol mixture cooled to -14°C . The blood in the tube was agitated and the thermometric readings follow:

Time (min.)	Temperature ($^{\circ}\text{C}$.)
0	+21
1	+6
2	+1
3	± 0
4	-1
5	-2.4
6	-0.455

"Initial freezing occurred at this point, and the tube was allowed to remain in the cooled bath for an additional 14 sec. While the thermometer still registered about -0.455°C ., the tube of semifrozen blood was removed and placed at -3°C . in an air cabinet. Within a few minutes at this temperature the blood became completely solid, and was maintained solid at -3°C . for 1 hour.

"Tube #3 was treated in a similar manner, but after initial freezing at about -0.5°C ., the tube was maintained at -14°C ., for a little over 3 minutes; this tube then was also

placed at -3°C . and maintained in the solid state for 1 hour.

"A control tube (C) contained whole blood preserved in A.C.D. solution and maintained at $+4^{\circ}\text{C}$. for about 4 days.

"Results of hematocrit determinations, and of determinations of hemoglobin in the supernatant fluid, and of osmotic fragility in hypotonic salt solution after thawing are:

Table 1—Hematocrit Reading and Hemoglobin of Supernatant Plasma of Whole Blood Frozen and Preserved For 1 hr. at -3°C . In the Frozen State

	Hematocrit Readings	Hemoglobin in Supernatant Plasma
Control	36.61	3 mg %
Tube #8*	36.84	6 mg %
Tube #3†	30.40	240 mg %

*Tube #8 was properly frozen and thawed.

†Tube #3 was allowed to remain too long after initiation of freezing in the bath at -14°C . The discrepancy between the hemoglobin in the supernatant plasma and the hematocrit reading is due to the fact that high centrifugal force, developed in the air turbine used for hematocrit determinations, breaks damaged red cells. This discrepancy is always an indication of poor preservation of red cells. The hematocrit of damaged cells is generally difficult to determine and not too reliable.

"The results obtained so far in the preservation of frozen and liquid blood at -3°C . are sufficiently encouraging to justify further studies, which are now under way," declared Strumia.

Dealer Sues Salesman for Failing To Make Closing In 5 Months

ALBANY, N. Y.—City Court Justice Herzog awarded an Albany appliance firm \$1,472.22 plus \$25 court costs in a suit against one of its salesmen, who allegedly failed to make a sale in five months.

The award went to Mullally Bros., 361 Pearl St. who had contended they hired Raymond T. Downing, 335 Madison Ave. and agreed to loan him \$75 a week, against a commission of 50 per cent of the profit on any item he sold.

M. J. Mullally, a member of the firm, testified Downing failed to make a sale between Oct. 22, 1948, and March 25, 1949, during which time he was loaned about \$1,700. The company sued to recover the loans, less commissions Downing earned on two later sales in April.

The defendant claimed the \$75 weekly he was paid constituted a drawing account.

September Refrigerator Sales In Carolina Area Nearly Double '48 Figure

RALEIGH, N. C.—Refrigerator sales for September in the area served by the Carolina Power & Light Co. were nearly double those of the same month in 1948, the utility reported recently.

The utility, which covers the largely rural area along the North Carolina-South Carolina border, said that dealers sold 3,000 refrigerators last September as compared with 1,704 in September of 1948.

Sales increases were also recorded in ranges, freezers, conventional washers, and driers. Declines were reported in water heaters, dishwashers, automatic washers, ironers, and water systems.

The comparative unit sales were as follows:

	Totals	1949	1948
Appliance		1,379	1,306
Ranges		3,000	1,704
Refrigerators		254	245
Freezers		808	814
Water Heaters		23	36
Dishwashers		334	480
Automatic Washers		2,380	2,105
Conventional Washers		20	14
Driers		69	77
Ironers		132	301
Water Systems			



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West Penn Freezer Sales In Oct. Beat '48 Mark, Other Appliances Down

PITTSBURGH—Home and farm freezers were the only major appliances to sell in greater volume during October than in the same month last year, dealers in the southwestern Pennsylvania territory served by the West Penn Power Co. reported recently. Home and farm freezer sales were up 14% in unit volume.

Major appliance sales were generally off from September, too. Room coolers, garbage disposers, and vacuum cleaners were the only ones to surpass their September totals.

Unit volume declines on the other appliances as compared with October, 1948, ranged from 12% on garbage disposers to 43% on ironers.

Comparative volumes are as follows:

Appliance	Oct., 1948	Sept., 1949	Oct., 1949
Refrigerators	1,326	1,371	1,021
Home and farm freezers	160	210	183
Room coolers	38	38	30
Dishwashers	33	26	29
Garbage disposers	822	971	602
Ranges	244	157	139
Ironers	62	60	55
Clothes driers	294	283	245
Washers, automatic	1,489	1,175	996
Washers, conventional	708	419	456
Vacuum cleaners	465	326	275
Water heaters			

Irion To Handle Admiral Line

EL PASO, Tex.—The Irion Co., Inc., 2159 Mills St., has recently been appointed wholesale distributor for Admiral appliances in west Texas and southern New Mexico.

Rules for Bargain Hunters

'How Cheap Can It Get?' Asks 'Redbook' Writer In Warning Public on Pitfalls of Discount Houses

NEW YORK CITY—Shopping in a discount house is no picnic for the unwary, an article by William A. Lydgate in the December issue of *Redbook* magazine points out.

Though the discount house may be able to get it for you wholesale, "sometimes there's a hidden plus in the price and that may cost you plenty," the article warns.

The article, called "How Cheap Can It Get?," is a result of Lydgate's personal investigations into the discount store business.

After pointing out that common sense tells a prospective bargain hunter that there is a limit to how cheap a refrigerator can be and that the price cannot be lower than the cost of manufacturing and transporting it unless someone didn't get paid for his work in the process, the writer declares that, nevertheless, people do find genuine bargains in discount stores—people who know how to shop in them.

But, he adds, if the reader is going to do any discount buying, he is advised to know in advance the "rules" which the bargain buyers have learned through experience.

He then proceeds to offer five rules, each of which he illustrates with incidents which are said to have actually occurred.

The rules, taken out of context, are as follows:

1. Don't go near a discount store if you are a sucker for a sales talk.

2. Don't buy merchandise whose quality standards you don't know.

3. Buy only well-known, nationally-advertised brands, particularly in electrical appliances (but, he points out, in a discount store even this precaution is no guarantee).

4. In a discount store, be a hard bargainer (many of these stores have a "two-price system"—one price on the merchandise tags and another lower price for people who haggle).

5. Buy at a discount store where your friends have been treated fairly, or if you know of one, at a discount store which has been long established. (Always ask yourself, "will this store give me a square deal so that I will come back to buy again?").

The article describes a typical discount store and how it operates. It describes the "card" system and the mumbo-jumbo that goes with giving the prospective buyer the impression that he is being admitted to an exclusive organization.

When the discount merchant says, in explaining his lower prices, that his store doesn't have the expenses of the regular stores, the bargain hunter is advised to ask him whether he can afford to cut himself off from the services given by a regular retailer who has merchandise in stock so that it can be examined before making a selection; who gives immediate delivery; who keeps spare parts on hand, ready to make repairs; who

guarantees the products he sells him; who pays rent for a store convenient to one's home; and who stays in business—and continues to stand back of what he has sold—even in bad years.

The article warns of the so called "quick switch" when a customer is switched from a well-known brand to "something a good deal better which came in this morning."

It describes the "kick-back" system where one discount merchant sends a customer to another who must pay a kick-back to the merchant who "steered" the customer to him.

Arthur L. Garniss, former head of the New York Council on Retail Trade Diversion, is quoted as describing many "wholesale houses" as "a jungle of unidentified merchandise in which the average person cannot compare quality or price."

The council, he says, has found many cases of collusion between discount store and wholesaler.

Many people wonder, the article says, "if some discount houses are 'gyp joints,' why do the big manufacturers sell to them? The answer is: 'most manufacturers don't.'"

A discount store often gets its hand on established-brand merchandise through a wholesaler who is going out of business. Or it buys up the inventory of a manufacturer who has gone bankrupt or is disposing of last year's models.

"Regular retailers believe that discount stores sold about three billion dollars worth of merchandise last year. They'd like to stop this trade they consider unethical," the article states.

After pointing out that many discount merchants get their customers through the more than 12,000 business organizations which have arranged discount buying for employees, the article asserts, "if you are determined to try the discount stores, then paste these warnings in your hat:

"Don't buy unbranded goods.

"Insist upon seeing the model number of any product you consider. Make sure that the price of the model you select is really higher elsewhere.

"If products are offered 'direct from the factory,' make sure, through your Better Business Bureau or Chamber of Commerce, that there really is a factory.

"And, above all, be sure to compare prices before you buy, on every single item.

"The discount merchant knows that you want to get something for nothing. He knows that you would like to be 'smarter than the other fellow.' That's why—appealing to your vanity—he says, 'I can see you are too wise to pay anything higher than wholesale prices.'

"You'd better keep your guard up. In fact, unless you are shrewder and more experienced in the discount merchant's game than he is, you'd do well to shop where you get a gilt-edged money-back guarantee," the article concludes.

Genera Controls Sets Up Three Factory Branches

GLENDAL, Calif.—Three new factory branch offices, located in Minneapolis, Buffalo, and Baltimore, have been opened recently by General Controls here, J. F. Ray, vice president in charge of sales, has announced.

Named as branch managers at these posts are R. Roger Rosell, Jr., Minneapolis; Paul A. Palmgren, Buffalo; and Fred H. Angier, Baltimore. All are graduate engineers and thoroughly experienced.

General Controls now has 21 direct branches in cities from coast to coast.

Business Will Recover But No Upswing Foreseen By Purchasing Agents

NEW YORK CITY—Look for business to recover, by the end of January, the ground lost in October and November because of the steel strike, but don't expect it to move upward again as it was doing in August and September.

That's the advice of the National Association of Purchasing Agents, based on reports from 200 industrial purchasing agents. The group doesn't anticipate an upswing because of uncertainties about the volume of spring business.

Acute shortages of steel are expected to exist until January. Even then, production will meet only current needs, the association said.

"The ready availability of other materials makes it possible and advisable to keep commitments in balance with steel deliveries."

Twenty per cent of the agents reported an increase in commodity prices during November, the largest so reporting since August. Prices were up on copper, brass, burlap, caustic soda, chlorine, animal fats, hides, lumber, coconut, Chinawood, tung oils, and textiles.

Prices were lower on antimony, electrical supplies, grains, fruits, kerosene, lead, menthol, linseed, cottonseed, edible oils, paint, petroleum, solvents, soaps, tin, and zinc.

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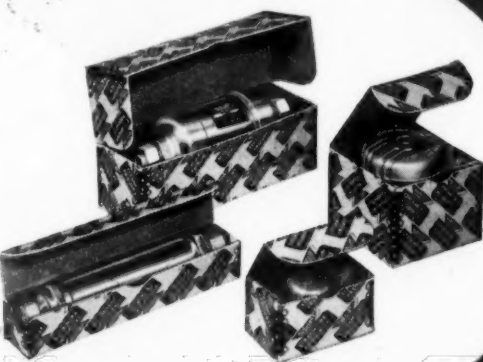
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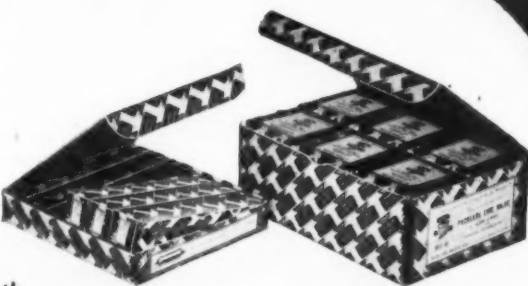
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Wholesale Sales Of Appliances Rise 3% over Oct. '48

WASHINGTON, D. C.—Appliance and specialties wholesalers reported an increase of 3% in sales for October as compared with the same month last year, the U. S. Bureau of the Census reported recently.

At the same time, wholesalers in this group reported an 18% decrease in the sizes of their inventories from last year. No change was noted in either sales or inventories as compared with September.

Commercial refrigeration equipment and parts wholesalers reported sales for October at 1% under October, 1948 and 7% below September. Their inventories were down 8% from last year and up 1% from September.

For the first 10 months of the year, sales of appliance and specialty wholesalers were off 3% from the same period last year, while sales of the commercial refrigeration equipment and parts wholesalers were off 8%.

NLRB Sets Aside Election When Union Interferes With Freedom of Ballot

WASHINGTON, D. C.—The National Labor Relations Board in an unanimous decision recently set aside an election because officers and adherents of the union polling the most votes engaged in assaults upon employees, threats of physical violence and economic sanctions, and other conduct which the board held "went far beyond the limits of legitimate electioneering."

The board held that the union's pre-election conduct prevented the employees from making a free choice of their representative for collective bargaining. In setting aside the election, the board said that a new election will be ordered at such time as circumstances will permit a free choice.

The election was held last March, at the Stern Brothers department store in New York City. The union whose conduct the board condemned is the Department Store Employees Union, Local 5, Independent. Objections to the conduct of Local 5 were made by the Retail Clerks International Association, A.F.L., which competed against Local 5 in the election.

The board's ruling reversed the recommendations of a hearing officer for the board who conducted a hearing to investigate the conduct surrounding the election.

The hearing officer found that Local 5's conduct was "very close to the extreme limits of permissive conduct," but he recommended dismissal of the objections by the Retail Clerks Union, in view of the fact that the election was among "sophisticated employees accustomed to the practices in the New York labor movement" and because of the neutralizing effect by the campaign of the Clerks Union.

Of this, the board said:

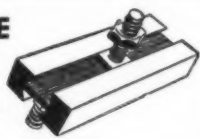
"We cannot condone the conduct revealed by this report by lightly assuming that it did not effect more than the reasoning faculties of the voters. Nor are we willing to set one standard for elections in New York City and another for the remainder of the country of which it is a part."

N. Y. Dealer Expands Operation

NIAGARA FALLS, N. Y.—Omel Furniture Co., furniture and appliance store, has taken on additional showroom space two doors from its building at 200 Niagara St. to expand its operations.

MOTOR-BASE ADAPTERS

Motor Failure quickly restored, with that spare motor and a set of motor adapters to make it fit.



1/4 to 1/2 hp.—101-D
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Wholesaler Appliance Sales Up, Equipment & Parts Sales Off

SALES

Kind of Business and Geographic Division	Per Cent Change			Oct. 1949 Panel No. of Firms Reporting	Re-ported Dollar Values (add 000)
	Oct. 1949 from Oct. 1948	Oct. 1949 from Sept. 1949	10 Mos. from Oct. 1948		
Appliances and specialties wholesalers	+ 3	0	- 3	103	17,683
New England	- 3	-14	-10	12	1,009
Middle Atlantic	+16	+ 3	+ 3	23	7,324
East North Central	+ 5	- 9	- 2	16	1,990
West North Central	-16	-12	-13	12	1,052
South Atlantic	-11	+ 8	- 7	15	1,634
East South Central	-26	-13	+20	4	673
West South Central	-19	+ 3	-13	6	699
Mountain	-22	+ 3	-24	7	806
Pacific	+18	+ 6	+ 3	8	2,496
Refrigeration equipment, parts (com'l)	- 1	- 7	- 8	30	1,043
Middle Atlantic	+ 8	- 4	- 6	6	240
East North Central	- 1	-14	+ 2	5	137
South Atlantic	+ 1	- 6	- 3	6	241
Pacific	-14	-21	-17	7	173

INVENTORY, END-OF-MONTH (AT COST)

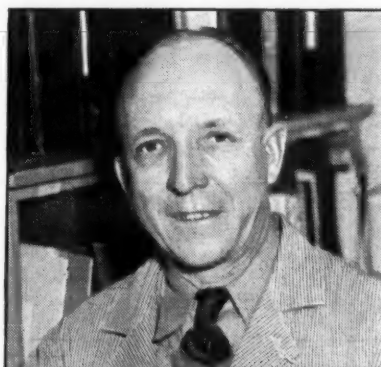
Kind of Business and Geographic Division	Per Cent Change		October 1949 Panel	
	Oct. 1949 from Oct. 1948	Oct. 1949 from Sept. 1949	No. of Firms Reporting	Reported Dollar Values (add 000)
Appliances and specialties wholesalers	-18	0	83	13,864
New England	-30	-11	12	903
Middle Atlantic	-31	+ 5	14	3,572
East North Central	-21	+ 9	11	1,322
West North Central	+ 4	+ 1	9	1,513
South Atlantic	- 5	- 7	14	1,428
East South Central	-19	-11	4	650
West South Central	-15	- 1	5	1,578
Mountain	- 7	+ 3	7	1,150
Pacific	- 6	- 1	7	1,748
Refrigeration equipment, parts (com'l)	- 8	+ 1	24	2,364
Middle Atlantic	*	*	*	*
East North Central	- 9	+ 2	4	487
South Atlantic	+11	+ 9	6	593
Pacific	-14	0	7	547

*Insufficient data to show separately.

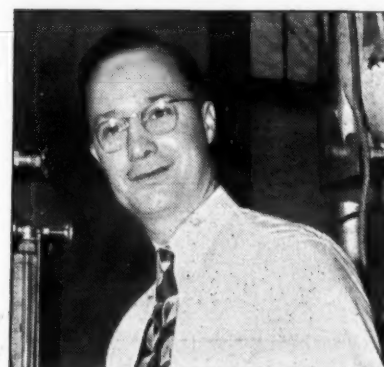
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"Frigidaire Parts are the best you can buy. You can always depend on them for a good job," says H. Banks Edwards, Edwards Refrigeration, Inc., Richmond, Va.

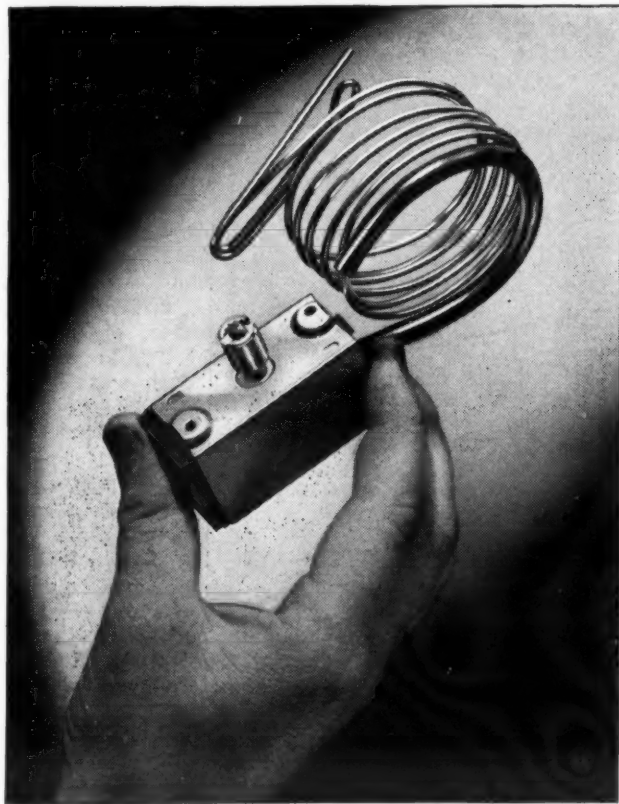


"We get better results on any refrigeration job with Frigidaire Switches," says Frank R. Werner, Frank Werner Refrigeration, Salt Lake City, Utah.



"We give our customers the quality service they demand with Frigidaire Parts," says Joseph E. Loiseau, South Side Refrigeration Service Co., St. Louis, Mo.

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Spend less time—get better results—with the new improved Frigidaire Cold-Control

Only a third as large as previous Frigidaire household thermostatic switches, these compact new Frigidaire "YR" Switches can be installed readily. Just a few types to stock—each fits a wide range of refrigerator models. And they're a snap to adjust, since you can keep the Cold-Control knob in a fixed position while regulating cabinet temperature.

Amazingly simple design reduces switch parts by one-half—insures long, trouble-free operation and extremely accurate temperature control. And there's far less chance of arcing, and pitting of contacts. Positive switch action holds contacts firm until the split-second the switch opens—then breaks them clean and fast.

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Honeywell Branch Offices To Sell Belfield Valves

MINNEAPOLIS—Products of the recently acquired Belfield Valve division of Minneapolis-Honeywell Regulator Co. will be promoted and sold through 74 Honeywell branch offices in the United States, Canada, and Europe, according to L. M. Morley, vice president and general sales manager for the Brown Instruments division.

The addition of industrial valves to Brown and Honeywell industrial and domestic measuring and controlling devices sales, said Morley, is part of an intensive over-all selling program.

Excise Tax Collections On Appliances Up In Oct.

WASHINGTON, D. C.—The Bureau of Internal Revenue has reported collections of manufacturers' excise taxes on electric, gas, and oil appliances of \$7,606,686 for October. This is \$237,758 more than was collected in the same month last year.

On mechanical refrigerators, air conditioners, etc., the bureau collected \$4,796,467 for the month.

Jensen To Represent Kalamazoo

OMAHA, Neb.—Christian Jensen, appliance dealer will represent the Kalamazoo Stove & Furnace Co.

Salesmen Share Profit Rather Than Earn Commission - - It Works 'Like a Charm'

DENVER—A display window in which there is always something going on and a compensation plan that gives appliance salesmen one third of the profit on the merchandise they sell have been developed into a winning combination for the Arapahoe Hardware Co. here.

Arnold Schlesinger, head of the firm, has spent \$32,000 in making his new store one of the most eye-appealing and efficient appliance sales organizations in Colorado.

Located out of the downtown district, one of the first things he did

was to make sure that his appliance windows were constantly interesting and "active" enough to catch attention of passers-by.

With 25 ft. of glass giving plenty of visibility, Schlesinger built a "stage" platform running back 12 ft. from the glass, and elevated 3 ft. off the floor. This was covered with linoleum tiling, with three elevated platforms at the extreme rear on which are shown automatic laundry equipment, refrigerators, and ranges in operation. At the front, smaller platforms just inside the glass show

hardware, display traffic appliances, and other small items.

Whenever an appliance prospect wants a demonstration, she is guided to the platform by a salesman who wears a white coat with the store name lettered in red on the back. Here the demonstration is carried on under powerful fluorescent light.

The entire scene is readily visible through the window, particularly because of the salesmen's white coats and white appliances, and in this way the window becomes a "stage" with plenty of activity to attract attention from the outside.

ACTIVITY STOPS 'EM

Schlesinger credits many major appliance sales to the fact that a passer-by was "stopped" by a window activity. In addition, real food is in the refrigerators, clothes in the washing machines, and pans steaming away on the ranges.

Schlesinger has appointed and trained a four-man sales crew for outside calls exclusively, each given a quarter of Denver as his territory. Each man has a long list of prospects obtained at the formal opening of the store.

At that time, 3,000 homeowners streamed through, attracted by 10 appliance prizes. Each filled out slips listing the type and age of appliances currently in use and those new appliances which interested them most.

NO DOORBELL RINGING

Splitting up the 3,000 among four men, with "side prospects" referred by the customers themselves, has obviated any need for doorbell ringing, Schlesinger said.

Instead of paying appliance specialists men the usual 5% or more commission on refrigerator and other sales, Schlesinger hit upon a "profit-sharing" plan which drew much more enthusiasm from his crew. Each salesman gets one third of the profit on any appliance sale, profits being figured after haulage expense, trade-in allowance, etc., have been considered.

The sales manager receives a 5% override on all appliance sales for scheduling calls, setting up demonstrations, and arranging service work.

The plan has worked like a charm, according to Schlesinger.

MORE LEEWAY FOR SALESMEN

"We feel it gives the salesman much more leeway in making each sale," the dealer said. "For example, the salesman can work out combination deals containing several appliances, adjusting the price to fit the situation, and keeping the profit returns equalized."

"He can quote his own trade-in allowances, having been trained to estimate reconditioning and reselling cost accurately, and insure the best profit return while still getting the new appliance sale."

"If the sale demands an exceptionally large trade-in allowance, the salesman is his own judge, and his own income depends on how well he figures costs. In this way, each man is made to feel as though he were in business for himself and takes greater pride and interest in making the best deals for all concerned."

Trade-ins accepted by Arapahoe Hardware are sold through a large showroom in the rear of the store, so that no used refrigerators or ranges appear alongside the two lines of new equipment in the front of the store.

All reconditioning, as well as delivery and installation, is handled by an appliance service organization on a contract basis. Schlesinger has a long list of people on hand who want trade-in refrigerators and turns over the stock swiftly, seldom accumulating more than three or four.

Gibson Increases Number of Regional Sales Divisions, Names Managers

GREENVILLE, Mich.—An increase in the number of Gibson Refrigerator Co. regional sales divisions and the appointment of a number of new divisional sales managers was announced recently by J. L. Johnson, general sales manager of the company.

William H. Dennison, former divisional sales manager in the southwest, which included Texas, Arizona, and part of Louisiana, has moved westward to the coast. Dennison now manages the western division covering Colorado, Utah, Idaho, and northern California. Dennison is making San Francisco his home and sales headquarters.

Don D. Shonn, formerly at Gibson sales headquarters, goes into the field to cover the southwest territory which includes Texas, and part of



D. D. SHONN



E. J. BYRNE



J. H. DAVIDSON



R. L. SANFORD

Louisiana. His headquarters are in Dallas.

Ed Byrne, former assistant advertising and sales promotion manager, is taking over the southern division which includes Tennessee, Arkansas, and parts of Alabama and Louisiana.

Bryne's headquarters are in Memphis, Tenn.

In the remapping of its sales territories, Gibson has added two new divisional managers in the east. The two men are John H. Davidson and Robert Sanford.



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cartons**

for easier handling . . . for greater protection

Right now, from your regular source of supply, you can get ANACONDA Copper Refrigeration Tube in standard 50-foot lengths in single-coil cartons—or in master cartons which contain 4 to 30 coils, depending on size.

The tube itself is the same high quality you've known for so long:

Mirror-Smooth—with a clean, bright interior that makes solid seats.

2 Uniformly Soft—for easy bending and flaring.

3 Thoroughly Dehydrated—exceeds even A.S.R.E. requirements.

4 Cup-Sealed—for maximum protection, minimum waste.

Ask for ANACONDA Refrigeration Tube by name—for refrigeration, air conditioning and general use.

Made by The American Brass Company, French Small Tube Branch, Waterbury 20, Connecticut. Sold in Canada by Anaconda American Brass, Ltd., New Toronto, Ontario.

For dependability use

ANACONDA
REFRIGERATION TUBE

'Kalamazoo Quiz' Cashes In on Thanksgiving Kitchen Grief

BUFFALO—A check-list quiz to determine how the housewife fared with her stove in preparing the Thanksgiving dinner was an effective post-Thanksgiving promotion idea employed by the Kalamazoo Stores, located at 870 Broadway and 2719 South Park Ave. here.

The promotion was staged with a newspaper advertisement headed by the caption: "The Kalamazoo Quiz! For Ladies Only. . . ." Here were the questions:

1. How did the Big Dinner turn out in that old stove of yours?
2. Was there room enough for all those big kettles?
3. Did you burn up because the oven wasn't hot enough?
4. Did the dinner burn up because you couldn't control the heat?
5. Did you wish the "darned old stove" was in the junk yard?
6. Was it such hard work cooking that it made you feel you were back in Colonial Days?

Copy continued: "If you have checked the above and the results look bad, then ask Dad for a check and see the new 1950 Kalamazoo ranges—gas and electric."

SALES ENGINEER

We are looking for a man with a solid background of successful selling in refrigeration and air conditioning field.

This man should have experience with both Ammonia and Freon equipment including air conditioning and be able to make suggestions for layouts to prospective customers.

This is an exceptional opportunity offered by a well-rated Chicago concern who, for many years, has done a successful job in commercial refrigeration and air conditioning.

We will accept applications from men with at least two years experience in refrigeration and who have earned not less than \$5000 during the past year.

State age and experience. Your application will be held in confidence. Members of our organization know of this advertisement.

Box No. 3367, Air Conditioning & Refrigeration News

Economies from Self-Serve Refrigeration Help Grocer Operate 'Round-the-Clock

ST. ANDREW, Fla.—Experience gained over several years of operation has convinced E. M. Kelly, owner of the Kelly Supermarket here, that self-service refrigeration provides the economies needed to profitably operate a store 24 hours a day.

Back in 1945, Kelly installed more than 140 ft. of self-service cases for dairy products, meats, produce, seafoods, and other perishables in his recently enlarged store and "threw the key away" in order to cater around the clock to the large numbers of tourists frequenting this northwest Florida Gulf coast town.

Almost all of the self-service equipment was installed on a test basis by Hussmann Refrigeration, Inc., and has proved highly successful as a means of permitting long-hours operation at minimum payroll cost, according to Kelly.

"Keeping operating costs down to a minimum is the only way by which we could operate over so long a schedule," Kelly said.

"By staggering my 10 employees, I have found that we can run continuously with costs being approximately the same as hiring three extra employees over a 7-day period.

"The secret is that self-service refrigeration, safeguarding every item, means that customers can wait upon themselves, less restocking is required, and the day-crew, when the full staff is on duty, can prepare the store efficiently for all-night operation."

How these methods have paid off may be seen in the huge volume in-

crease which the store has experienced.

In 1945, when he first began promoting all-night operation, volume was \$158,444. In 1946, it jumped to \$214,695.33.

By 1947, when tourist traffic began to build up in the St. Andrew area, volume jumped to \$310,760.15. In 1948, volume was \$370,273.98. For 1949, figures are at least 30% ahead of last year.

"I believe that any community with a trading area of 30,000 population can support a 24-hours-per-day store," Kelly said. "Particularly if plenty of self-service refrigeration is used."

Pressurization, Cooling Installation Is Available To Aircraft Industry

HAGERSTOWN, Md.—Pacific Air-motive Corp. of Burbank, Calif. and Stratos Corp. of Farmingdale, L. I., a wholly owned subsidiary of the Fairchild Engine and Airplane Corp., have jointly announced the signing of a technical assistance agreement whereby aircraft manufacturers will be able to obtain a fully coordinated pressurization and air conditioning installation for military and commercial aircraft.

The equipment is adaptable to both propeller and jet driven aircraft.

The agreement was negotiated by Richard D. Maystead, manufacturing division manager of Pacific Air-motive Corp., and F. E. Newbold, Jr., general manager of Stratos Corp.

Both companies are in production on this equipment and the agreement makes it possible for any aircraft manufacturer to obtain for his own use the research discoveries and technical skill of these two corporations. The equipment ranges from units designed for single place fighters to multi-engined bombers.

Stratos designs and manufactures a complete line of cabin air conditioning equipment, consisting of superchargers, blowers, and cooling packages.

8 Air Conditioners Installed In Eastern Theater



4 Companies Appointed Agents for Kold-Hold

LANSING, Mich.—The Platecoil Division of Kold-Hold Mfg. Co. here, has appointed four new eastern representatives.

They are Paul B. Huyette Co., Inc., Philadelphia; H. R. Houghton Co., Baltimore; W. B. Parsons Co., Boston; and Gerald B. Duff Co., Newark.

The Huyette company has served for 53 years in the Philadelphia area. It has a staff of six salesmen, all graduate engineers.

The Houghton firm has a background of 24 years in electric heating. Houghton is a licensed engineer.

The W. B. Parsons Co. was established in Boston in 1932 by Parsons after 16 years with the W. D. Cashin Co. of Boston. Parsons is a registered engineer and his two salesmen are both graduate engineers.

The Duff concern will cover metropolitan New York and parts of Connecticut and New Jersey. Duff is assisted by George S. Ewing and William H. Eckhard.

Job Finished Without Loss Of Box Office Receipts

RUTHERFORD, N. J.—The Rivoli Theater here, seating 1,600 persons, recently was equipped with eight 10-ton Typhoon self-contained air conditioning units to provide cooling for the auditorium, Typhoon Air Conditioning has reported.

Installation required only electric, water, and drain connections, it was said. It was accomplished during off hours with no loss in box office receipts. The units, cased in furniture-style cabinets, are placed in plain sight along the sides of the theater.

According to Typhoon, the units are engineered to prevent drafts and provide air conditioning comfort before the cool air becomes dissipated.

Dealership Opens In Hamilton, Ont.

HAMILTON, Ont., Can.—A new appliance store has been opened by Niagara Engineering & Construction, Ltd. at King St. West and Hess St.

New Attempt To Shut Neb. Ice Plant May Come Soon

OMAHA, Neb.—Another effort to close the city's Metropolitan Utilities District ice plant, which has been operating in the red for a number of years because of the change from ice boxes to mechanical refrigerators by most Omahans, has been pledged by Frank Frost, a director of the concern.

Frost pointed to the fact that the plant was charged with an operating loss of \$25,235 for the 12 months ending Nov. 1, this year, as attested by MUD Comptroller A. L. Adams, whereas in 1948, an operating loss of \$25,602 was recorded.

These losses, he continued, have been recorded despite the fact that since 1946 the ice plant has not been charged with depreciation of its buildings and equipment, except for tools and furniture. In 1946, this depreciation was placed at \$17,279. If the same amount had been charged to the plant this year, loss for the year would have been boosted to more than \$42,000, the director declared.

Correction

Wall Mfg. Belongs to Grove City, P.A., Not G-A

The P. Wall Mfg. Co., whose new blow torch was featured in the Nov. 21 issue of the NEWS, is located in Grove City, Pa., not in Grove City, Ga. as the NEWS inadvertently stated. In fact, a perusal of the atlas revealed, there isn't any Grove City, Ga.

Supplee-Biddle-Steltz Becomes New Name of Philadelphia Firm

PHILADELPHIA — Stockholders of the Supplee-Biddle Co., housewares, appliance, and hardware distributor here, voted to change the firm's name to the Supplee-Biddle-Steltz Co., it was announced recently.

The change in name resulted from a decision to include the name of the company's president, William G. Steltz, Sr., who became president in 1934. He joined the Supplee Hardware Co. in 1910. The firm merged with the Biddle Hardware Co. in 1913.


10,000 SODA FOUNTAINS

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With **HEAT-X CAST ALUMINUM LIQUID COOLERS WITH TWO BEVERAGE COILS**






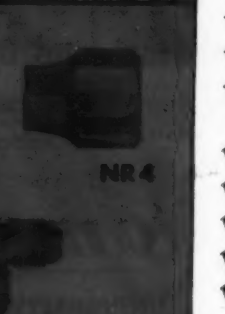


● SANITATION is really achieved with the HEAT-X CAST ALUMINUM LIQUID COOLER. It requires relatively little space and brings complete protection against freeze-up damage. Separate coils for refrigerant and beverages are cast in the aluminum block. Specified and used by dozens of leading soda fountain manufacturers, its fast cooling and trouble-free operation has already brought economy and pleasure to over 10,000 fountain owners.

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Detroit Survey Facts Demonstrate Value Of Promoting Automatic Washers, Driers

ATLANTA—Should the automatic electric home laundry be promoted by utilities?

The answer is an unequivocal "yes," according to E. O. George, assistant commercial manager for the Detroit Edison Co. of Detroit.

George recently produced an imposing array of survey results in support of his point for utility representatives attending the general sales conference of the Southeastern Electric Exchange here recently and concluded:

"There are but few groups of appliances that can offer the customer so many benefits, relieve the housewife from so many unpleasant tasks, and still represent a desirable load. We strongly believe in energetic promotion of the automatic electric laundry."

George pointed out that while utility officials will quickly agree that the automatic electric home laundry will build load, there has been some question in their minds about whether or not it should be promoted.

This question arose because the drier and automatic washer were unknown factors. So George proceeded to cast light on these unknown factors. His presentation, somewhat condensed, follows:

The electric clothes drier, although in limited use before the war, is really a postwar appliance, and as such presented several problems to the utility. Its load and diversity

When Are They Used?

Time of Day	Clothes Driers	Automatic Washers
A.M.	48.4%	56.1%
P.M.	17.1%	19.3%
Both	34.5%	24.6%

Days of Week	Clothes Driers	Automatic Washers
Monday	68.3	70.0
Tuesday	30.1	19.5
Wednesday	29.4	24.4
Thursday	28.4	19.1
Friday	33.7	34.3
Saturday	17.6	24.0
Sunday	10.5	4.9
Every day	7.5	.0
None in particular	10.8	17.8
Bad weather only	1.6	.0

factors appeared to be poor. This was an appliance with a demand for 4 kw. plus coming on top of the wash day demand.

It had an installation problem and a high initial cost giving it, apparently, a limited market appeal. There was also some question as to customer benefits and cost of operation.

The question confronting us was—"Should the Clothes Drier Be Actively Promoted or Merely Accepted?"

Then there was the question of the automatic washer, not so much from the problem of its load characteristics but rather from its use

and customer acceptance.

It therefore appeared that before we could justify the inclusion of these two appliances in our promotional program, there were certain customer-use and load-characteristic factors to be evaluated requiring the collection of many opinions and statistics.

These were the factors to be studied and ones which ordinarily would be the basis for a load study on any appliance whether it be an electric incinerator or an electric blanket.

1. Customer Benefits. The appliance should render a real service to customers, help them to live electrically, to enjoy greater convenience and comfort, and it should do its job better than possible by any other method.

2. Cost of Operation. The cost of operating the appliance should not limit its use, result in high bill complaints, or represent a constant hardship to users.

3. Service Problems. The appliance should withstand rugged home use. Its mechanism should not be so complicated as to require frequent service calls.

4. Potential Purchasers. The task performed by the appliance in relation to cost should be such that a wide market is possible.

5. Load Characteristics. Here we must know many facts. What is the maximum demand? When does it occur? How long does it last? What will be the effect of many installations on the system peak?

6. Revenue. What is the annual kilowatt-hour use of the appliance? Generally, we should promote new business which tends to increase the existing ratio of net-to-gross income. The net revenue must be estimated on the basis of the entire cost of service, including a proper share of fixed and overhead cost.

For instance, if the ratio for your existing business is 0.18, then any appliance to justify energetic promotion should certainly exceed this ratio unless a question of public policy makes it desirable to promote a low revenue item.

WHAT INFLUENCES UTILITY TO PROMOTE?

This is not intended as a complete list of the factors to be taken into consideration in determining the acceptability of an appliance for a promotional program. Others to be considered are:

1. What effect will its promotion or lack of promotion have on our relations with dealers?

2. What are its installation problems?

3. Will its sales be backed up with a realistic servicing program?

Upon the establishment of this list of factors, there were several possible methods for use in the collecting of the required information. Three of the several methods were:

1. Experience. Here the information is acquired through the accumulation of many years' experiences such as most utilities had an opportunity to do with refrigerators, ranges, and water heaters.

One word of caution with the use of this method. The recording of experiences must be continuous.

For instance, pre-war load studies on water heaters are of little value today. The advent of automatic washers, the increased use of electric dishwashers, and changes in size of houses has invalidated many previous studies. There is a similar problem with ranges.

2. Test and Trial Uses. A second method for the weighing of value of an appliance for promotional purposes is through the use of controlled tests in laboratories and use of

Average Monthly Kilowatt-hour Use Per Clothes Drier Customer

Month	Kwh.
January	90
February	84
March	88
April	80
May	77
June	75
July	67
August	62
September	75
October	83
November	87
December	90

Average Number of Days of Use per Week

Clothes Driers	Automatic Washers
3.2	2.7

Other Electric Equipment Owned By

	Automatic Washer Customers	Clothes Drier Customers	Saturation In Our Area
Electric Ranges	37.0%	50.9%	26.0%
Ironers	43.0%	65.6%	7.0%
Electric Water Heaters	7.0%	10.9%	4.0%
Clothes Driers	12.0%	100.0%	.7%
Automatic Washers	100.0%	82.6%	....

Service Calls on Clothes Driers In Detroit District

Month	Number of Service Calls	Number of Clothes Driers In Service	Ratio of Service Calls To Number of Driers
July, 1948	239	1,039	1 Call to 4.3 Driers
August	138	1,289	1 Call to 9.3 Driers
September	193	1,591	1 Call to 8.2 Driers
October	213	1,998	1 Call to 9.4 Driers
November	191	2,435	1 Call to 12.7 Driers
December	230	2,926	1 Call to 12.7 Driers
January, 1949	195	3,308	1 Call to 16.9 Driers

experimental installations in employees' homes.

Although much useful information may be gained by this method, it has limitations, particularly in determining load characteristics and service problems.

3. Customer and Load-Use Surveys. A third method is the installation of recording demand and watt-hour meters in groups of representative home users supplemented with customer interviews. This is the method which we selected.

The information which is to be presented, then, on these two appliances was collected through interviewing 311 clothes drier owners from a list of 1,000 installations and by interviewing 421 owners of automatic washers. In addition to these interviews, recording watt-hour and demand meters were installed in a group of representative homes.

Our first findings were concerned with customer acceptance and customer use. This was done through interviews which not only indicated the degree of customer acceptance but also provided us with an opportunity to record likes and dislikes.

The electric clothes drier enjoys an unusually high degree of customer acceptance—96.1%. There is somewhat less acceptance for the electric automatic washer—81.5%.

This latter statistics should, however, be qualified for if interviews were made only on recent purchases of automatic washers, we believe there would be a higher percentage of acceptance.

	Do Customers Like Clothes Driers?	Automatic Washers?
Like	96.1%	81.5%
Dislike	3.9%	8.9%
Undecided	.0%	9.6%

These were the leading benefits of an automatic drier as expressed by customers: 129 comments were received on the texture of the clothes—they were whiter, had a cleaner smell, no fading, no clothes pin marks, clothes were softer, fluffier, and do particularly well with towels, mats, bedspreads, and baby clothes.

The second largest group of benefits were concerned with less work, such as—no hanging up of clothes, easier and less ironing, clothes dried evenly, no sprinkling, no lifting and carrying of baskets, no worry about the weather, space saving, does the work of a maid.

This list is of value in the preparation of promotional material, but to us of even greater importance are the dislikes although not representing a high percentage. The dislikes were directed towards moisture and steam, lint, takes too long to dry, harder to iron, starched clothes have lint, shrinkage, mixed clothes, twisted buttons, can't do woollens, etc.

In order of frequency the likes and benefits expressed by owners of automatic washers were: time-saving, labor saving, can do other work while washing, automatic rinsing dries clothes very well, don't have hands in water, don't have to handle wet clothes, and, at the bottom of the list, clothes are clean, easier to operate.

Heading the list of dislikes were: clothes not clean, defective, lint, can't be used for small loads, and, at the bottom of the list, too much hot water used.

Our second group of statistics is concerned with market potentialities. We need to know among other things: who owns these appliances; are they class appliances; are they limited to high income groups or can we expect their eventual use among all income levels?

Twenty-two per cent of our automatic laundry equipment is installed in the group representing 8% of our

customers. We find that the highest percentage of ownership is in our middle income group. While in the lower middle and lower income groups, representing 47% of our customers, we have less than 10% of the installations.

The economic status of the average owner of these appliances is, as to be expected, considerably above the average; but with their increased use there will be a tendency for more equal distribution.

The family size likewise runs somewhat above the average—families of 4.8 are owners of clothes driers and families of 4.0 are owners of automatic washers. The average Detroit family is composed of 3.6 persons.

Our next findings were concerned with the use of the drier and washer. This information was obtained through the use of recording demand and kilowatt-hour meters, and was of particular interest to those concerned with system peak problems.

MORE INFORMATION NEEDED

To summarize our findings, we believe that there is need for more information on the operation of the automatic clothes washer. Eighty-one per cent of customer acceptance is not good.

Here our problem is not one of measuring the appliance in relation to system peak as with the drier, but rather the conducting of studies for seeking out and correcting certain customer impressions such as, they do not wash clean, hard on the clothes, etc.

This is a joint responsibility for the manufacturer, the dealer, and the utility. We are now in the process of establishing a testing program on automatic electric washers in an attempt to arrive at the necessary information.

Incidentally, we are promoting automatic electric washers today through the dealers by displays in our offices for neighborhood dealers, through co-op newspaper advertisements and by home and public demonstrated by home service girls.

We believe the automatic electric clothes drier may very well take its place with the range, refrigerator, and water heater as a major appliance even though it still has a lint and moisture problem and can take but 90% of the washing it is still, apparently, a very acceptable appliance in the viewpoint of the customer and the company.

What is being done to promote the clothes drier in our territory? First, we are not merchandising clothes

Income Groups

	Clothes Driers	Automatic Washers
Upper	22%	21%
Upper Middle	30%	32%
Middle	41%	37%
Lower Middle	7%	9%
Lower	0%	1%
	100%	100%

driers, but they are being displayed in our offices for appliance dealers.

During the introductory period of the clothes drier, which we assumed to be about 2,000 installations, we paid for the wiring which averaged about \$30 per drier. At the present time, we install the driers through a contractor for the dealer, billing the customer \$25.

This payment is extended over a six months' period so that it does not represent an objection in the dealers' presentation of the drier, or a hardship for the customer. We also contribute \$25 towards an installation in the dealers' display room.

To conclude, we can expect from the automatic electric laundry a revenue of \$34 a year.



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January Furniture Show
American Furniture Mart

'Modern Touch' Helps Health Foods Store



Note prominent position of refrigerated case in the Dietary Health Foods Store as Proprietor Richard Ricotta waits on one of his customers.

Pre-Packaged Dried Fruits Displayed In Refrigerated Case Are Fast Selling Items

PATERSON, N. J.—Ever since the Dietary Health Foods Store here installed a 12-ft. refrigerated display case and a frozen food case, sales have increased for the packages of fruits that are cellophane packed by the store owner.

"We had always sold fruits, such as prunes, dates, peaches, and others from the wooden cases that they came with when they were ordered," explains Owner Richard Ricotta, "and this meant that customers desiring these fruits or some others that were specially prepared without sulphur for certain people were sold these fruits by our employees scooping it up and putting it in bags to be weighed.

"This wasn't a very sanitary sales method nor was it an enhancing one for sales. I therefore thought of tak-

ing in a refrigerator case and packing sulphur and unsulphured fruits in cellophane packages, then putting them on display in a refrigerator case which would keep them fresh and appetizing."

Ricotta installed a 12-ft. case and then proceeded to package dried fruits in one-pound and half-pound packages. The first day that a display of these fruits was made by this method, Ricotta sold out his entire stock of dried fruits packages. Customers even took a better liking to them because he handed them a package that was chilled and could be eaten immediately.

"Health Food stores are supposed to offer foods to customers and also present them in the best suitable manner for immediate consumption," relates Ricotta, "and our new case has done remarkably well in maintaining this position."

In addition to the 12-ft. case, he purchased a low temperature case and now is able to handle ice cream packages in his store as well as a full line of frozen food and fresh vegetables.

"Formerly we didn't handle any of these items because they were perishable, even though every health food store operator knows that they help to build store traffic and add to business profits," Ricotta explains, "and I didn't intend to take in a frozen food cabinet until the dealer who was selling me the display case insisted that I try it out or return it.

"Within a week after I installed the freezer and publicized the fact that we were now stocking ice cream, frozen vegetables, and foods, business increased and I thanked the dealer for allowing me the trial period," Ricotta said.

Services of UL In Refrigeration, Air Conditioning Fields Outlined; 5 Types of Equipment, Including Display Cases, Now Being Tested

ATLANTIC CITY, N. J.—The Underwriters' Laboratories is currently testing five classifications of refrigeration and air conditioning equipment and is expanding its service in this field as the products become more standardized, E. F. Tabicz, UL engineer, informed the Refrigeration Service Engineers Society.

He spoke at the RSES 12th annual convention here during the All-Industry Exposition.

Tabicz explained that the Underwriters' Laboratories is a non-profit organization set up to test devices for life, fire, and explosion hazards. The UL is sponsored by the National Board of Fire Underwriters.

The five classes of refrigeration equipment it now tests are self-contained air conditioning units, commercial refrigeration systems of the remote type, air conditioning systems of several component parts, refrigerated display cases, and refrigerated accessories.

Strong emphasis is placed on a "hot room" test, he asserted. Under this test, the equipment is placed in a 104° F. room until all temperatures have stabilized. Then the units are run until their temperatures reach a maximum. Throughout the testing period, the rise in temperature of the various parts of the equipment is noted.

All equipment is measured against the National Electrical Code and certain other standards set by the Underwriters' Laboratories itself. If the device meets these standards,

they are approved by Underwriters' Laboratories.

Tabicz emphasized that the Underwriters' Laboratories is not an insurance rating bureau and its approval has no effect on insurance rates. However, he noted, some cities have come to require the UL label on equipment installed in their municipalities.

Tabicz explained that the Underwriters' Laboratories has two follow-up services on equipment and devices that have been tested. One is the label service and the other is the re-examination service. It is under the latter that most refrigeration equipment and appliances fall.

With the label service, UL labels are sent to the manufacturer and are attached to the approved device. The manufacturer buys these labels, which are serially numbered.

Under the re-examination service, a UL inspector visits the factory of the manufacturer whose product has been tested and approved about every three or four months. He observes whether or not the manufacturer is maintaining the standards.

These approved products are listed in a bi-monthly publication issued by the Underwriters' Laboratories. No UL label is attached to the product, though the manufacturer can put on his own label to show that the unit he makes meets the requirements set by the testing organization and that he subscribes to the re-examination service.

Tabicz pointed out that the only

way a purchaser can tell if one of these products has been approved is to look it up in the UL catalog.

He stated that Underwriters' Laboratories has inspectors located in some 200 cities, in addition to branch offices in New York City and San Francisco. Its headquarters are in Chicago.

Touching on some of the specific requirements asked of some types of equipment, Tabicz noted that motors are required to have both over-current and over-heating protection. Any cord entering a motor where it might contact oil should be rubber coated and have an oil-resistant outer coating.

Refrigeration controls, he said, should be able to perform satisfactorily through 100,000 cycles of operation.

Tabicz asserted that when a piece of equipment does not comply with the National Electrical Code, it is given special tests. If it proves to be safe it is accepted and approved.

He commented that Underwriters' Laboratories has been testing refrigerated display cases only for the past couple of years because, prior to that time, they were generally "tailor-made" affairs. All that could be tested was the lighting system.

As the cases become more standardized, he added, more testing of this equipment is being done. Where the manufacturer does not provide the condensing unit, he said, the UL asks him to use a tested and approved unit.

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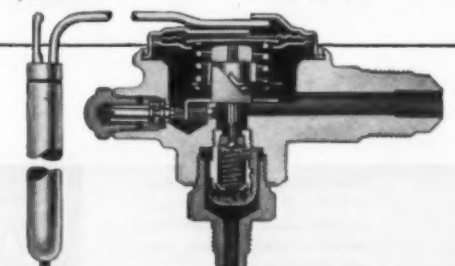
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AIR CONDITIONING & REFRIGERATION NEWS

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1) of years; people grow old by deserting their ideals."—SAMUEL ULLMAN.

"What does it feel like to be famous? It's like having a string of pearls given you. It's nice, but after a while, if you think of it at all, it's only to wonder if they're real or cultured."—SOMERSET MAUGHAM in "A Writer's Notebook."

"The difference between the right word and the almost right word is the difference between lightning and a lightning bug."—MARK TWAIN.

"People are paid wages for doing the things they are told to do. People are paid salaries for doing whatever is up to them to do without being told. The difference in words is small, but the difference in dollars is amazing."—Advertisers' Digest.

"Freedom from want, if interpreted as freedom from the necessity to struggle, would be a calamity if ever realized."—Minnesota Congressman WALTER H. JUDD (a former Missionary to China).

"An economic expert is a guy who knows tomorrow why the things he said yesterday didn't happen today."—OLLIE CRAWFORD in the Philadelphia Inquirer.

He's So Right!

Carrier's President Cloud Wampler opines: "This business cycle differs from previous cycles in that our country still possesses a tremendous supply of money. At present, the Administration in Washington is pursuing policies that add to the supply of money, namely deficit spending and easier bank credit. Simultaneously, the government is creating demand by defense spending, foreign aid and the purchase of agricultural commodities under farm price support programs. These factors lead most economists to predict that the adjustment has about run its course and that substantial improvement is not very far away."

"I am more than ever convinced that we will never again see price levels as low as those of only a comparatively few years ago. It seems more likely that a new plateau of long duration has been established. Certainly it is true that our whole national debt and expense structure absolutely requires the maintenance of a cheap dollar."

"Then there is this angle to be considered. Wages are the biggest single element of cost, and they are not apt to work materially lower. How about this as the understatement of the year?"

"Certainly it follows—as the night the day—that if all industry is forced to adopt the full welfare program recommended by the Steel Fact Finding Board, many retail prices will again advance. And when welfare costs do boost prices, it seems reasonable to assume that the labor leaders will come back with demands that wages be raised to meet these prices. Thus, there is contained in

the present non-contributory welfare proposal the makings of another vicious inflationary circle.

"An improvement in public feeling became apparent as long ago as last August. Some of the fears that had beset us earlier in the year had lessened. One of these was fear of depression. Then too, although the international situation had not changed basically, there was less talk of war. And much of the Truman administration's disturbing legislative program, including his proposed \$4 billion dollar increase in taxes, had been sidetracked—at least for the time being."

"The business community is still fearful, however. Behind this fear is something much more important than the strikes. And that is deep concern over what an inept government has done and may do."

"I believe it was wrong for the government to create the Steel Fact Finding Board rather than follow the course prescribed by the law of the land in the Taft-Hartley Act. Also, I believe that the steel companies made a mistake when they agreed to accept the Board's recommendations even to the limited extent that they did. In any event, the whole history of the recent steel controversy must bring home to us anew three mighty serious points:

"1. The constantly growing tendency of government to interfere in business affairs.

"2. The pitting of group against group—and here I mean to say that no political party should ever try to buy the labor vote, or any other vote.

"3. Government by men continues to be substituted for government by law."

"Basically, the economy of the

country is in a sound position. American industry has demonstrated its ability to come down from a post-war inflationary peak through a series of orderly steps, thereby avoiding the bust that was feared by many. Confidence has been substantially restored. Money is cheap and plentiful. Continuing increases in population and in the standard of living assure a constantly expanding market.

"In other words, demand is increasing and the means of satisfying demand are available. All the basic economic ingredients are present to start the country off on a new cycle of prosperity."

"However, I would call your attention to the exact words of the last sentence that I read—All the basic economic ingredients are present to start the country off on a new cycle of prosperity. Now I wish to pose a question—Is it sufficient to have the basic economic ingredients present?"

"Unfortunately, the answer is 'no.' For it is impossible to isolate the economic ingredients. They are unalterably mixed up with the political ingredients."

Pertinent Questions

"Recently Secretary of the Treasury Snyder said: 'The financial soundness of the United States government is beyond question.' That statement is true as of today. But I would like to ask Mr. Snyder these questions:

"How long can an institution remain sound when it spends more than it takes in during its most prosperous year?"

"How long can an institution remain sound when it fails to balance its budget, as we have failed to do in eighteen out of the last twenty years?"

"How long can an institution remain sound with a debt six times as large as its gross take, in its most prosperous year?"

"How long can an institution remain sound that tolerates appalling waste and inefficiency such as was revealed by the Hoover Report?"

"How long can an institution remain sound when its management retains itself in power by deluding the owners with doubtful give-away programs—which only seemingly offer something 'for free'—and by making promises which it cannot keep?"

"The national philosophy which made our country great is being changed right before our very eyes. Emphasis has been shifted from opportunity to security. The same thing is happening here that happened in Great Britain. The incentives which once inspired men to do great things—to take risks for a worthwhile reward—are being destroyed. And much of this destruction is part of a planned campaign that is leading us step by step toward a welfare state, or socialism, or statism. You may take your pick of these terms. They are all more or less synonymous and all equally bad!"

"Believe me, this is not irresponsible language on my part. For the last seventeen years we have seen our Federal government grow and grow until it has increased its actual personnel by more than four times—and these four times as many bureaucrats are spending ten times as much. The emphasis constantly is on the theme that people are getting something for free."

"I suppose this may be good politics, good for election day. But it is bad business in every sense of the word, and sooner or later the people who are supposed to be helped the most will be hurt the worst."

"Now then, what are we going to do about it? I don't claim to have all the answers, but I think that I can provide some very important ones. And here they are in what might be called reverse English:

"1. I am concerned over the difficulty that we of business have in providing funds to conduct the fight that must be waged and won. In total, I suppose, the business interests of this country provide a lot of money for so-called good causes. But this is disbursed in so many different directions. There is no real dedication to the truly focal point, which is practical politics."

"2. I am distressed by the lack of personal sacrifice that prevails with respect to men in business and the fight for good government. Just ask yourselves this question if you will: How many businessmen do you know who devote any large amount of their time to seeing that good people are

nominated for public office and that these good people are elected? A political fight has to be won if we are to take advantage of the fine basic economic ingredients that are present in America."

"3. I am appalled by the lack of statesmanship on the part of many business people. Take, for example, the matter of economy in government. Well, we're all for it, aren't we? And yet when an economy move happens to hit our particular community, or more especially our own company—well, you know what happens. Economy is good for everybody but me!"

"Summing up—and I assure you that I take no pleasure in saying this—we businessmen have done all too little to combat the trend that is rapidly bringing our country to precisely the same situation that prevails in England. There we are able to see exactly what happens when a welfare state is substituted for free enterprise. The very life blood has been drained out of British industry through unbearable taxation. And the result is true welfare for nobody."

"During the past few weeks I have been tremendously impressed by the lack of public reaction to two statements that recently came out of the White House. One quoted Mr. Truman as saying that he did not see how the budget could be reduced. The other was that he would renew his efforts in the next session of Congress to push through a sizable boost in taxes."

"As to the impossibility of budget reduction, might it not be proper to ask Mr. Truman whether he has studied the Hoover Report? I feel sure he has somewhere in his office this practical blueprint of how Federal expenses can be cut. True, parts of this plan require legislation before it can exercise full effect. But I know of no new laws that are needed to eliminate at least some of the overlapping activities, the waste, the inefficiencies, and the tremendous turnover in Federal personnel—tens of thousands leaving but even more tens of thousands hired to replace them. All of these things certainly have been documented clearly enough in this remarkable study."

"For my part, I feel that we have never sufficiently honored the man most responsible for this report. He is a great American. And the merits of his most recent work certainly deserve the outspoken public support of every businessman—indeed, of every citizen."

"As to the second of Mr. Truman's statements—the threat of even higher taxes—it is utterly amazing to me that more people do not realize that we have reached, or certainly are very close, to the maximum point of tolerance. And here I would remind you that within the next twelve months there will be an election—the results of which will largely determine whether the fiscal affairs of our country will ever again be conducted on a sound basis."

"So, once more I reiterate—we who are in business simply must be better citizens. This means active participation in practical politics."

It Takes Time

"The other evening I had a long talk with a distinguished business leader who said to me that over the long pull, he is highly optimistic as to America's future. His reasons were these:

"More and more people are coming to understand the difference between 'freedom' and 'for free.' And more and more people are realizing that a choice has to be made between the two—that we cannot have them both."

"Sorry as I am to say, I believe my friend is wrong. I do not share his view that more and more people are learning that when 'for free' comes in 'freedom' goes out. The cold fact of the matter is that an increasingly large number of Americans are accepting that phony bill of goods which rests on 'something for nothing.'"

"Implied in what I have just said is that those who could change the American way of living are doing a far better sales job than we are. And this is a situation that can and must be remedied. I am dead sure that the American people will make the right choice provided they are well informed and have at least some good leadership to which they can turn."

"You and I as businessmen have a tremendous responsibility on both these counts. And that responsibility can be discharged—if we just will."

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Menu-Suggestion Inserts for Pre-Packaged Fresh Fish Increase Sales Appeal of Refrigerated Open Display

NEWARK, N. J.—Sales of fresh fish have been increased by more than 250% and the department has earned a much better position in the store's over-all volume as the result of putting fish sales entirely on a pre-packaged, self-serve basis at Emmet's Supermarket here.

The tremendous increase in volume came about through an idea of Jess Kaufmann, Emmet supervisor, which was developed last year.

The New Jersey supermarket had always considered fresh fish retailing one of the worst jobs in meat market operation. Not only was the cleaning and handling of fish unpleasant to customer and employee alike, but there was always the risk of spoilage, and slow movement to contend with.

Few customers enjoyed waiting many minutes while a fish was scaled, cleaned, and wrapped up for taking home. Lastly, frozen fish of various types, sold in the frozen food display refrigerators, had far less eye-appeal than fresh fish.

Through installation of low-temperature display refrigerators, and a pre-packaging program, Emmet's has literally revolutionized the fresh fish operation—to the point that fresh fish sales now amount to more than 10% of the total meat department volume.

Before installing the much-expanded fresh fish department, Emmet's experimented with the perishability of fresh fish on open display. It was found that when temperatures were held from 25° to 28° in self-service cabinets, there was no danger of spoilage for at least three days.

Therefore, a large walk-in refrigerator, capable of maintaining a temperature of 25° was installed, and in the center of the meat department, two 6-ft. Hussmann low-temperature cases were set up.

As soon as a shipment of fish arrives from the wholesaler, the entire pre-packaging crew and butcher staff go to work on it. All of the fish is weighed, inspected, cleaned, filleted if necessary, packaged in MSAT cellophane, and rushed immediately onto display in the self-serve cases.

"One of the most important points is the fact that there is no delay in cleaning the fish," Kaufmann said. "Whereas if we had to freeze the fish in a separate refrigerator before packaging it, the chances are that some of the more delicate varieties would rapidly lose their appearance."

"Now, all of our fish goes on display in the cases in maximum eye-appeal condition—and this fact alone, has accounted for the huge increase we have experienced."

With the low temperature maintained in the self-service cases doing away with spoilage and discoloration possibilities, it has required nothing special in the way of cellophane packaging for merchandising success, according to Kaufmann.

Standard packages are used, with a bloodproof, moistureproof cardboard backing, and the fish packages

are "sized" to appeal to the family of two, four, or six.

Sales of every item, including mackerel, halibut, smelt, whiting, bass, trout, cod, scallops, oysters, shrimp, crayfish, etc., have been accelerated in equal proportion. Moreover, it has been found, the individual cellophane packages of higher-priced fish sell almost as rapidly as the lower priced.

"We have found it important to 'dress up' our fish packages as much as possible," Kaufmann said. "We use sprigs of parsley, lemon slices, or orange slices to break the monotony of snowy white fish meat in many packages, or use colored labels."

"Signs at the back of the case explain that all of the fish shown is fresh. This goes a long way toward regaining the confidence of customers who have been disappointed because of the flavor migration of frozen fish."

By far the most important development in self-service pre-packaged fish, developed by Emmet's, has been the practice of inserting handy labels under the cellophane wrapper of every package.

The labels, which have a printed identification of the type of fish in the package on one side, show a different label each week.

For example, with salmon, one section of the label describes the fact that the salmon is fresh, and suggests two typical menu items for the family, such as creamed salmon and baked salmon fillets.

Emmet's goes to extra pains to obtain worthwhile recipes for each type of fish sold in the self-service cases, and by offering something new each week, has considerably stimulated fish purchasing.

"We actually have many women now buying fish two or three times a week who formerly bought none at all," Kaufmann added.

Jesse H. Cox Dies After Heart Attack

MEMPHIS, Tenn.—Jesse H. Cox, aged 40, division manager of the Frigidaire commercial and air conditioning department of McGregor's, Inc., died Nov. 22 at his home, 1640 Vance, following a heart attack.

A native of Memphis, Cox has been associated with McGregor's for the past four years.

He is survived by his widow, a son and a daughter. Interment was in Memorial Park.

Lafayette, Ind. Commercial Firm Moves to New Quarters

LAFAYETTE, Ind.—Frank Harris of Harris Commercial Refrigeration Co. here recently announced that his firm has moved into a new, modern four-story building at 22 N. First St.

The new quarters have 16,000 sq. ft. of floor space and are equipped with a modern 8,000-lb. elevator.

Harris claims to have the "largest, most modern showroom of its kind in western Indiana."

Ice Cream's Scarce, So Supermarket Builds Million-Gal. Plant

HOUSTON, Tex.—Over a million gallons of ice cream a year can be produced by the new stainless steel and tile ice cream plant recently installed by Weingarten Supermarkets serving this area.

When the price and labor situation made it difficult to insure a smooth supply of ice cream at low prices for customers, Weingarten's took the issue squarely in its own hands by investing \$100,000 in its new headquarters ice cream plant.

The plant, in a 40 by 25-ft. building, is completely tiled from floor to ceiling, and equipped with stainless steel ice cream machines, work tables, storage cabinets, etc., throughout.

An 18 by 10-ft. walk-in low-temperature refrigerator will store upwards of 1,000 gallons of ice cream for distribution to the 22 stores operated by the chain, according to R. C. Miessler, food production manager for the chain.

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Wisdom from America's Top Scientist

DR. VANNEVAR BUSH, who was coordinator of America's top-secret scientific programs during World War II, and who now is President of Carnegie Tech made a memorable speech not long ago. It was his thesis that overemphasis on personal security would weaken national security, and result in national flabbiness of character. This weakening and flabbiness, he pointed out, might lead the American people to defeat in the next war.

America's top scientific "brain," Dr. Bush was associated with the New Deal under both Mr. Roosevelt and Mr. Truman. He was director of the Office of Scientific Research and Development during the war, and is now Chairman of the Research and Development Board of the National Military Establishment. His words carry weight.

In his significant speech Dr. Bush urged the American people to keep and protect the way of life that has enabled America to prosper so astoundingly. He also warned that the United States was getting "perilously close to the end of our tether" in depending on national credit and "soaking the rich" to finance huge governmental spending.

"It is strange this should be so with the spectacle of England before us," he said. "We merely have not gone quite so far. . . . We are tempted merely to spend and spend, and hope that in some mysterious way the American system of production will provide. If we do so, that system may bog down. . . .

"Whether we are sound depends upon how we control our selfishness and our desire to be kind. For even good things cannot come all at once. If we build well, we can have security—genuine national security. But if we are deluded into believing that security of the individual against all hazards and all ills can be obtained by fiat and by law, without limit, and without deliberate progress toward an end, we will sacrifice the foundation which makes humanitarianism possible, and start the weary climb over again, only after a long, dark interval.

"The dangers of rushing headlong into a full welfare state are very practical and very immediate. Yet there is a more subtle danger than this in the present cry for personal security. A passion for personal security is an opiate which tends to destroy the virile characteristics which have made us great.

"The danger of a central bureaucracy which plans all our lives, and does out what it thinks we need, is much more than that it will plan badly, although it undoubtedly will. The greater danger is to ourselves, that we will cease to think for ourselves, that we will not exert ourselves when only a drab mediocrity lies ahead, that we will substitute the arts of petty political maneuvering for virile self-reliance.

"This country has the highest standard of living in the world by far, and it did not come about by chance. . . . The greater part of it is due to the fact that we have willed it so. . . . We can legislate, and set up new bureaus, systematize life to the utmost, plan and regulate, until we are insured against the hazards of existence and the injustice of our fellows in every way that we can devise. But when we have succeeded in doing so we shall have produced a dead level of existence far below our possibilities—we shall have stopped progress. We may then succumb in a world where wars are still possible."

There speaks one of America's most brilliant men. He had every reason to keep his mouth shut, but he was brave enough and patriotic enough to divulge his considered appraisal of "the fix we're in."

More power to Dr. Vannevar Bush! And less power to some of the lesser men he has served!

Whether Accepted or Rejected**When Figuring Job, Commercial Firm Protects Itself by Billing Prospect 5% for Planning**

By C. Dale Mericle

ATLANTIC CITY, N. J.—As more and more distributors of commercial refrigeration equipment turn to complete store layout and planning to increase their sales of "fixtures" and allied items, they are confronted with the problem of "who is going to pay for this engineering service if we don't get the contract?"

Discussion of this topic brought out some interesting comments in a panel session at the recent annual meeting of the National Commercial Refrigerator Sales Association held here during the All-Industry Show week, but there was no agreement as to how this should be handled.

Several suggestions were offered, but the only point on which all distributors agreed was that "something had to be done."

The problem came up when Irving Shell and Harry Culbertson, distributors, spoke on "The Future of Refrigeration Dealerships," both of whom stressed the fact that most alert, successful commercial equipment dealers today are selling through a planning service that shows their prospect how to increase sales by improved merchandising methods.

"Majority of successful distributors in the east are those who have set themselves up to do a complete job on markets and restaurants," Culbertson declared. "They offer complete engineering and store planning services, and usually sell other lines besides refrigeration."

"Most distributors have found it increasingly hard to sell refrigeration equipment only. Many distributors, however, are successful, having a good volume and profit, with refrigeration alone, but I do believe that they render some additional services to their customers," he said.

"Offering a complete planning service, on the other hand, requires additional manpower—layout men, installation and servicemen—and much greater capital for the distributor to be able to finance a complete installation."

The need for distributors to do a better job of merchandising was stressed by Shell of the Lee Shell Co., Chicago, who declared that "the future holds many promises for the live-wire dealer."

"Our products play the leading role in the drama of merchandising, and are definitely a necessity, but we must render a service to our customers. One bad dealer and one bad distributor can hurt a dozen surrounding dealers and distributors."

"We must eliminate the baloney that is often mistaken for high pressure salesmanship. We must merchandise. There is no room today for the man who is merely shouting without knowing what he is shouting about," asserted Shell.

"We must know our subject. We've got to learn how to merchandise. The business of selling equipment today presents many opportunities for the operator who takes himself seriously. He picks himself up out of

LEE SHELL COMPANY
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You are requested by the undersigned to draw plans and specifications, to make the necessary surveys and recommendations, to make drawings and suggestions, and in general, put your time and effort in towards creating and designing for our special requirements; certain fixtures and equipment most suitable to our particular needs. And present to us in blue print form, floor plans and details as well as price for complete job. If we decide to place the complete order with you, there will be no charge for the above-mentioned planning, detailing and pricing.

If, however, our decision is not to place the order with you, we retain that privilege and right; and the blue prints as well as details pertaining to this said equipment to become our property and we agree to pay the cost of such planning on a basis of 5% of the total cost of the proposed job within 30 days after delivery of plans.

Name
Address

Accepted by:
LEE SHELL COMPANY

Date:

HOW PROSPECT AGREES TO PAY FOR LAYOUT.

the realm of fixture peddler, and learns how to sell butter, etc. . . .

"There are still people who say, 'we don't need a refrigerated vegetable case to keep vegetables; we don't keep vegetables, we sell them,'" he continued.

"But wait until the smart merchandiser steps in and tells these merchants how pre-packaged vegetables will cut their losses," Shell explained. "There's a great future ahead if we realize it will take merchandising, cooperation, and vision."

Coming from the floor, though, was this question posed by a distributor: "When a grocer decides to modernize, he solicits every fixture house. Each one brings in a layout that an architect would charge \$200 for. Can anything be done to prevent all the time being spent on layout work when only one can get the job?"

"This problem has been plaguing us, too," Shell admitted. "It is rather difficult to hang up a shingle that we are untouchable—that if you want us to make a drawing you're going to have to pay for it."

"When we get a prospect that's been highly recommended by another customer, we find he usually already has a layout or two. In this case we have him sign a contract that calls for 5% to use for expert planning if he doesn't buy his equipment from us."

"We get as much as \$500 or \$1,000 on deals like this. We aren't interested," Shell further explained, "in a mere \$50 because the prospect will drop \$50 if he decides to buy from another outlet."

This contract form as used by Lee Shell is reproduced herewith, and contains this important provision:

"If, however, our decision is not to place the order with you [Lee Shell] we retain that privilege and right; and the blue prints as well as details pertaining to this said equipment to become our property and we agree to pay the cost of such planning on a basis of 5% of the total cost of the proposed job within 30 days after delivery of plans."

Another distributor at the NCRSA meeting commented that "we have tried that percentage deal too, but we found that 75% of our prospects wouldn't go for this, so we had to drop it."

Such a contract was thought unnecessary by still another distributor who declared that "basically a distributor should know his costs and stick to his prices."

Anent this problem, one distributor commented, "We make a layout without charging the prospect, but we never leave it with him, even overnight, until he signs the contract."

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You'll probably agree that a 54 degree variation between valve body and feeler bulb temperatures is a rarity in anyone's experience. But to thousands of refrigeration engineers who have seen the above demonstration this was a dramatic proof of the value of LIQUID CHARGING. Actually you can install the A-P valve body in a temperature either warmer or colder than the bulb without affecting bulb control. This is an A-P LIQUID CHARGED advantage that simplifies installation while it protects your system performance.

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REFRIGERATION PARTS CATALOG

"Service Doesn't Falter When It Comes From Harry Alter"

Q. 1. How Is Pressing Room A. C. Job Figured? 2. How Can 7½ Ton Unit Handle 2,700 cfm?

Air Conditioning and Refrigeration Institute
Baltimore, Md.

Editor:

I noted Mr. LaSalvia's discussion of air conditioning a room containing 60 steam presses, in the Nov. 14, 1949 issue of the AIR CONDITIONING & REFRIGERATION NEWS, with great interest. In Method "A," I assume that no ventilation would be used. Since a pound of condensing steam releases about 1,000 B.t.u. and 2,100 lbs. of steam will release 2,100,000 B.t.u./hr., 175 tons of refrigeration will be needed. This figure, of course, does not include any of the other heat leakage that would take place.

I wonder how my estimate ties in with Mr. LaSalvia's of 120 tons of refrigeration?

There is another item in this same issue of the NEWS which puzzles me. On page 10, in the lower right hand corner, a 7½-ton air conditioning installation is described. It is used in conjunction with a fan which exhausts 2,700 c.f.m. Since a 7½-ton unit cannot satisfactorily handle anywhere close to 2,700 c.f.m. of fresh air, there must be an unreasonable amount of outdoor, warm air infiltration. It is difficult for me to see how results could be satisfactory.

J. GOLDFIELD,
Director of Training

A. 1. Rule of Thumb Is 2 to 3 Tons Per Press 2. High Temp., Large Air Motion Might Do It

Dear Mr. Goldfield:

My experience on this type of an air conditioning system [for a pressing establishment] can be well expressed in a general rule of thumb for approximate loads. It is customary to allow 3 tons of refrigeration for each press when there are from one to 10 presses in a room. Allow 2½ tons for each press when there are 11 to 40 in a room and 2 tons per press above 40 presses. These tonnage figures are for spaces

large enough to house the presses, and which are completely air conditioned.

But in order to substantiate my figure in a general way, because no definite problem is involved, let us work out the cooling load for this space in particular, which is to be completely air conditioned without hoods.

In order to proceed with this type of an installation one must know the operation of a press. The press is

made up of a top and lower part. The outside of the press is of cast iron and the inside surface of the meeting parts is of canvas. Above the upper half is the manual operated steam valve. Each section of the press is fed with 50 p.s.i. steam with the opening of the steam valve. This steam is fed only when the press is in the shut position. As the press is opened some of the steam is flashed from 50 p.s.i. to atmospheric pressure and flows into the room.

As the operator opens the press he also operates a foot lever, which causes a strong vacuum on the canvas side of the press, and pulls most of the steam from the surface of the garment and because of this vacuum it also pulls the room air through the garment to cool the garment. The steam in the compartments of the press is condensed and is carried back with the air of the room to a vacuum pump where the air is released and the high pressure condensate is returned to the boiler.

It has been found in practice that in pressing two-piece suits, namely a coat and a pair of pants, that the average operator will finish six suits per hour. Also that in pressing a suit that it takes about 20 releases on the press. This means a release every 30 seconds. So that per hour there will be an average of 120 releases. On each release about 3 cu. ft. of steam is lost into the room. This steam is in the form of vapor at atmospheric pressure.

Then $120 \times 3 = 360$ cu. ft. of vapor is lost per press per hour. At atmospheric pressure there is 26.8 cu. ft. of vapor to the pound, so that $360 \div 26.8 = 13.5$ lbs. of vapor which is lost per press per hour.

It is generally accepted fact that

Readers who have questions concerning applications of air conditioning or refrigeration equipment are invited to pass them along to AIR CONDITIONING & REFRIGERATION NEWS, which has made arrangements with James J. LaSalvia, author of the *Key to Air Conditioning*, to supply the answers free of charge.

When sending in the question, readers should furnish as much data about the problem as possible so the answer given can be specific.

all of the 60 presses will not be in operation continuously for any one hour. We can assume that 90% will be in operation or 54 presses. If 13.5 lbs. of steam is lost per hour per press, then $13.5 \times 54 = 730$ lbs. total loss of steam per hour.

Of the 35 lbs. of steam supplied to each press per hour, 13.5 lbs. is lost and 21.5 lbs. is returned to the boiler in the form of condensate.

The two parts of the press, the

bottom of the lower part and the upper half of the top, are made of cast iron. There is about 12 sq. ft. of cast iron surface which comes in contact with the 50 p.s.i. or 300° steam on one side and room air of 78° on the other side. The weight of cast iron is about 75 lbs. The specific heat of cast iron is .12.

We are now ready to determine in a general way the cooling load.

1. 730 lbs. steam x 1,150.4 B.t.u. (total heat)	840,000 B.t.u.
2. 75 lbs. x 54 presses x .12 (300° — 78°)	107,892
3. Heat gain from steam pipes and other hot surfaces in the room (assumed)	120,000
4. Occupancy: 75 (assumed)	45,000
5. Transmission heat gain through walls, roof, solar load, and general lighting (assumed)	240,000
6. Ventilation or outside air, 2½ air changes (assumed)	72,000
Total	1,424,892 B.t.u.
Then, $\frac{1,424,892 \text{ B.t.u./hour}}{12,000 \text{ B.t.u.}} = 119.6 \text{ tons.}$	

In general this job is approximately 120 tons, while on an actual survey it may work out a little less or little more.

This problem, of course, would not be met in this manner. As I have noted in my previous article, if the refrigeration is to be used, that drop curtains should be installed to cut down on the refrigeration load.

I hope that this information will straighten out the confusion as to how I arrived at the 120-ton load.

The second part to your letter in regards to the use of a 7½-ton self-contained air conditioning unit in Angelo's restaurant in Panama City, Fla., as carried in the NEWS of the Nov. 14 issue, does not apply to yours truly, as it is not my article, although when I read it I came to the same conclusion that you did.

I agree with you that it does not make sense, but my version of this article is that all of the facts are not brought out and until they do, we shall be in the dark and confused.

A 7½-ton unit supplies about 3,000

c.f.m., and according to the article there is 2,700 c.f.m. exhausted. Therefore, the unit must be taking all outside air, which will bring the temperature of the air leaving the unit to about 74° F. dry bulb instead of the usual 60° F.

If this is the making of comfortable conditions, then the actual cooling load with normal ventilation and without the heat-giving equipment must be only 2 to 3 tons instead of 7½ tons. This must be a very small place. The larger unit was used probably to handle all outside air as it is a bad ventilation job. Some comfort can be had in this case if the air motion in the space is about 15 to 20 air changes per hour with 74° air leaving the unit, instead of the normal six to nine air changes with 60° air leaving the unit.

The temperature in the room must be about 87° F. with a large air motion. This condition may give some comfort.

JAMES J. LA SALVIA

"PENN CONTROLS ARE FIRST CHOICE OF THE TRADE"

That's the observation of J. M. Oberc, successful Detroit refrigeration jobber. "Penn controls are first choice," he explains, "because they are precision-made, rugged and dependable."

As you might expect, Joe Oberc has built his progressive business by stocking what the trade wants—products that make service problems easier. His way of business can be summed up like this: Help your customers make a profit and your own profits will take care of themselves. And you can be sure that when he boosts Penn refrigeration controls it's because they're dependable performers.

In your work, too, Penn controls can help build profits. The famous Penn 270 with two-pole construction handles the work of two controls on multiple installations. Penn Series 247 Water Valves stay on the job longer because their design keeps water out of the "works." And the new Penn Automatic Hot Gas Defroster opens the door to a big new source of profitable business. Talk to your wholesaler or write for information. Penn Electric Switch Co., Goshen, Indiana. Export Division: 13 East 40th St., New York 16. In Canada: Penn Controls Ltd., Toronto, Ontario.



Jos. M. Oberc, President
J. M. Oberc, Inc.
Detroit 3, Michigan

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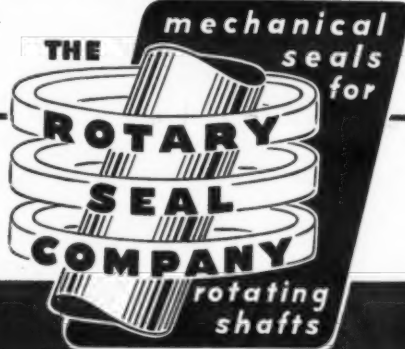
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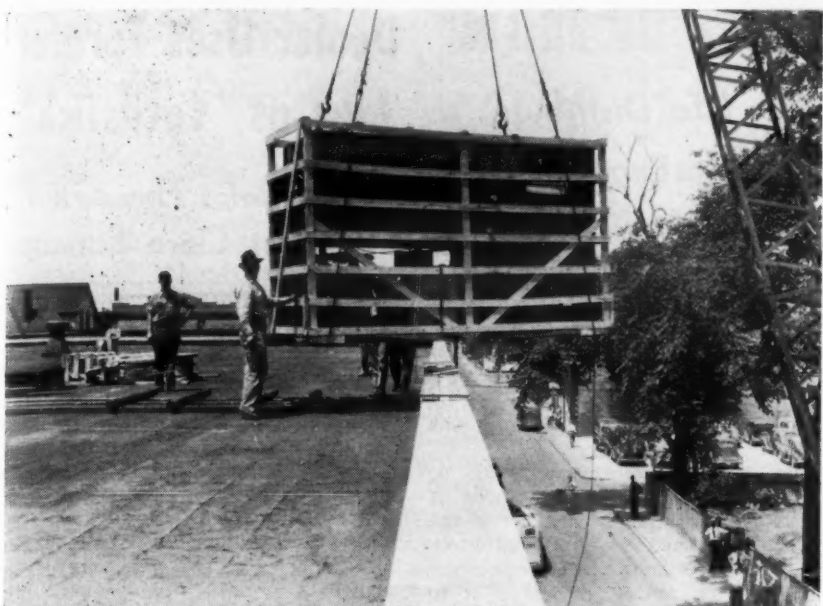
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Up In the Air . . .



Truck crane with a 90-ft. boom lifts the 7,000-lb. Governair unit up to the roof of the two-story Burroughs building.

Text: It's a Great Life

Harry Bowser Tells Contractors What To Look for When Hiring Salesmen

ATLANTIC CITY, N. J.—“When you're hiring a salesman . . . find out first if he likes people . . . because that's all selling is . . . liking and understanding people.”

So declared Harry Bowser, director of sales training, Thomas A. Edison, Inc., in addressing the recent annual convention of the Refrigerator & Air Conditioning Contractors Association here. Here are some of the other points made to the contractors by a man who has carried the gospel of the need for better salesmanship in 150 speaking engagements in 1949.

“They say it's hard to get young men into selling because they don't think it's ‘interesting’ enough. What's more interesting than people—and that's all selling is, people.”

“The big failure of many men who fill all the other qualifications for a good salesman is their inability to close the sale. The salesman who gets orders learns to ask for the order all through his sales talk to the prospect, and is always sure, after what might seem to others to be a final turnaround, to ask for the order again.”

“The modern salesman must, of necessity, be above any average that we have known in the past—he must be a creator of business, a serviceman, a psychologist, a trouble-shooter, a conservator of business,

an expert in sales programing, a student of economy and finance, and above all else his entire sales life must be dominated by the buyer's point of view.

“A good salesman must be enthused about the company he represents and the product he is called upon to sell. When a prospect doesn't believe, he doesn't buy. When a salesman doesn't believe, he doesn't sell.

“Too many salesmen come out of a deal sold instead of having sold. Sold by the prospect on ideas—that he should put off buying until later—that he should look at everything else on the market before buying, that he should put off making a decision for some reason or other. We need salesmen who can come home with orders and not promises.

“The study of salesmanship will reveal that people must be persuaded to improve their living. The fact that people have needs is not enough. Needs are unimportant. It is wants that count. Women don't need vacuum cleaners—they used brooms for hundreds of years. Women don't need washing machines—they used a washboard for generations. Only when the American salesman created in the minds of women the desire and want for a better way of sweeping and a better way of washing clothes did women turn to these modern conveniences which have given them a better way of life.

“The intelligent salesman knows that his efforts cause people to raise their standard of living as a result of his effort. The salesman also knows that his efforts help to reduce the cost to customers. He knows that if only 1,000 persons without benefit of salesmanship use an article, it may cost \$10, but when salesmanship is applied, the production costs are likely to be lowered to bring the price down to \$5 or even \$1.

“What should you do if the customer wants to know the price immediately—before you get into the sales talk? Avoid discussing price if you can, because it will block off your build-up in creating a desire for the product. However, if the customer persists in wanting to know the price, you may have to tell him, because otherwise he'll be blocked off from listening to what you have to say because of the unanswered question.”

Fire Sweeps Rochester Store

ROCHESTER, N. Y.—The Strauss Store, appliance dealer at 501 Main St. E., was swept by fire recently with damage estimated at \$50,000.

30-Ton Conditioning Unit Installed Without Disturbing Occupants

INDIANAPOLIS—Complete installation of a 30-ton Governair central station year-round air conditioning unit on the roof of the Burroughs building here without any disturbance to the occupants was accomplished recently by Finney Bros. Refrigeration Co.

The unit was placed on the roof so that it would not take up any space occupied by the tenants of the building, W. T. Finney declared. A small protective shelter was put up around the equipment.

To elevate the 7,000-lb. unit to the roof of the two-story building, a truck crane with a 90-ft. boom was employed, he added.

In making the installation, Arville T. Baker, Finney service manager, utilized the existing ventilating duct system with only minor modifications. This duct system was wrapped and insulated to eliminate air leaks and temperature loss. Four inches of blown rock wool was applied to the second floor ceiling.

Additional insulated ducts were installed across the roof to the far corners of the building where inadequate air quantities existed.

Building corridors were used to return air to a large closet in the central part of the building which serves as a return plenum room. The air is then returned to the year-round Governair unit installed on the roof.

. . . Very Much at Home



Inside this shack is the 30-ton unit—completely out of the tenants' way. W. T. Finney (left) looks on as service manager explains the system to the owner.

Martenis Heads M-H Sales Engineering

MINNEAPOLIS—William W. Martenis has been appointed manager of sales engineering of Minneapolis-Honeywell Regulator Co., Thomas McDonald, vice president, has announced.

Martenis will assist in planning specifications, approve new developments, and coordinate activity between the sales and engineering departments of the company.

Martenis is a native of Minneapolis

and a graduate of the University of Minnesota where he received bachelor's and master's degrees in engineering. He joined Honeywell in 1931.

After several years in the engineering test department, he was named chief designer and later promoted to chief application engineer. In the latter position, he was in charge of the company's field engineers who are assigned to various sections of the country.



NO RESISTANCE TO BENDING...

just like **DRYSEAL** refrigeration tube

This tube can be bent by hand with little effort. And because of its ductility and soft temper, Dryseal Tube will not split on the ends when flared for compression fittings.

Another important Dryseal feature is the absence of moisture. This tube is bone-dry inside from one end to the other. Careful dehydration and precise mechanical sealing at each end see to that. Also, the special crimp seal used is no larger than the diameter of the tube, so that it will pass through any opening large enough for the tube itself.

Dryseal is made to new, more economical dimensional standards with tube sizes from 1/8" to 3/4" O.D. It comes neatly packed; two 50-foot coils to the carton. Carton is attractively designed so that it is easy to identify in stock. All of which makes for an easier, faster, trouble-free, quality installation.

Ask your distributor about Dryseal next time you order refrigeration tube. He has Dryseal and will give you prompt delivery.



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Opening Suburban Branch Halts Declining Sales

ST. PETERSBURG, Fla.—Opening up a new suburban appliance store at 578 Central Ave. here, has proven the most efficient means of restoring dropping volume for Tyree's, Inc., General Electric dealership here.

The Tyree organization, one of St. Petersburg's largest downtown appliance stores, has found that parking difficulties were seriously influencing sales—to the point that a lot of purchasing potential was being lost.

Therefore, Hal Gordon, president and general manager of the firm, thoroughly surveyed the market, and determined that sufficient parking space was the No. 1 requirement for volume expansion—inasmuch as the company already has a large, well-operated service department and other facilities.

"The parking space theory worked out well," Gordon said. "At the new store we can park from 20 to 30 automobiles easily off the street. A lot of our customers, calling in response to advertising, are referred to the suburban store, and sales have picked up rapidly."

The new store is managed by Carroll Bristol, veteran specialty salesman of the firm.

Free Orchids Draw Big Crowd

NIAGARA FALLS, N. Y.—Levy Bros. furniture and appliance store pulled traffic at its anniversary sale by offering an orchid free to everyone visiting the store during the event. The orchids were flown to the store from Hawaii.

'Trade-In Refrigerator Bulletin Board' Eliminates Need for Reconditioning Shop

LOS ANGELES — An unusual method of solving the trade-in problem has been developed by California Appliance Co., Frigidaire retailer here, with the installation of a "trade-in refrigerator bulletin board" on the wall of the downtown store.

The firm didn't have the space for a complete refrigerator rebuilding department. So it hit upon the idea of acting as a "clearing house" between new refrigerator prospects who have old boxes to sell, and low-income customers who would be satisfied with good-quality used boxes.

"The idea is simple," a spokesman said. "As soon as we learn that a prospective new-box purchaser has an old one to trade in, we explain that we can help her sell it to another homeowner, rather than offering her the usual limited allowance."

"We tell the customer that we have a steady stream of visitors to the store, who are interested in our 'trade-in refrigerator bulletin board'—which lists names and addresses of homeowners who have an old box to sell, together with complete information on the refrigerator."

"Thus, if the customer will buy her new refrigerator from us, we will post her name and address on the board, and guarantee that she will sell the box for several dollars more at least than we could offer her for it."

The idea has worked out perfectly since the outset, it was stated. As many as 20 listings at a time have been carried on the board, which is checked by up to 20 homeowners

daily, in search of used appliances.

The new-refrigerator purchaser who sells her box in this way realizes from \$15 to \$30 more than if it were traded in at the dealer allowance figure, the company claims.

When prospective customers call in as a result of newspaper advertising, California Appliance sends out a letter which says:

"Dear Mrs. Blank: We know that many of our friends have used washers, refrigerators, ranges, etc., that they would like to dispose of or exchange for new ones, provided they could get a fair price for the used appliances they now have."

"We know that many of our friends are looking for used appliances, provided they can buy direct from the owner, cutting out the handling cost which the middleman must charge."

"At our store we have a handy bulletin board listing all used appliances for sale; also listing used appliances needed by purchasers. Why not take advantage of this free service by listing your 'for sale' items or checking the board for a used appliance you need. There is no cost or obligation."

Thus, the company has been able to consistently make sales without the necessity or expense of handling trade-ins—and it has created many friends in the process.

"A lot of the people who have bought used appliances from our bulletin board listings will eventually be new-appliance purchasers," it was pointed out. "Likewise, the customers

who have realized a better return from their old equipment are pleased enough to give us the opportunity to sell them their next new appliance."

Noland To Distribute Some Westinghouse Items

MANSFIELD, Ohio—The franchising of the Noland Co. of Newport News, Va., as a distributor for Westinghouse water heaters, the Waste-Away garbage disposer, dishwasher, water coolers, and fans has been announced by A. R. Heck, merchandise manager of plumbing and heating distribution for the Westinghouse Electric Appliance Div.

The Westinghouse line will be handled by the 22 branch offices of the Noland company that serve the eastern seaboard from Washington, D. C., to Jacksonville, Fla., and cover the following states, in whole or in part: District of Columbia, Maryland, Virginia, Kentucky, North Carolina, South Carolina, Tennessee, Alabama, Mississippi, Georgia, and northwestern Florida.

Western Auto Promotes Brown In Texas Area

SAN ANTONIO, Tex.—R. A. Brown has been named appliance sales manager for the San Antonio district by Western Auto Stores Co.'s Texas division here.

Brown was formerly city-wide appliance sales supervisor for the San Antonio district, but now has jurisdiction over two stores, one on Villita St. and the other on Main Ave. H. L. Deering, who was formerly assistant manager of the Main Ave. store, becomes appliance manager.

Dealer Sets Up His Used Appliance Showroom In Warehouse

LINCOLN, Neb.—Hardy Furniture Co., which carries the largest number of major appliance lines in Lincoln, has just opened a retail store for used appliances on the second floor of the warehouse at 905 North 16th St. Douglas E. Butler is manager.

Jerry Hunt, sales manager, pointed out that the new selling location was made necessary by the constantly increasing volume of trade-in deals. Reconditioned refrigerators, washers, stoves, etc., will be displayed in the warehouse "bargain center" along with used furniture taken in trade on new appliances and home furnishings.

Hunt also said that the warehouse store makes available more space for the selling of the more profitable new appliances in the downtown store, while the warehouse location provides better "psychology" for selling used merchandise.

Promotion of the new location will stress that it not only is out of the high rent area and provides better parking facilities for customers, but also is virtually rent-free because Hardy's already had the space and all the management had to do was rearrange warehouse facilities.

67,891 Ranges Shipped In Aug.

NEW YORK CITY—The National Electrical Manufacturers Association has reported that shipments of electric ranges during August numbered 67,891 units valued at \$7,892,334.

Texas Firm To Handle Gibson

EL PASO, Tex.—Announcement of the appointment of Appliance Distributors, Inc., 1409 Texas St., as distributor for Gibson refrigerators and home freezers, was made recently.

To Reach All Key Men . . . in the Refrigeration and Air Conditioning industry throughout Canada, use the only Canadian publication covering the field. . . .

CANADIAN
Refrigeration JOURNAL
A "National Business" Publication
137 Wellington St. W., Toronto, Ont.

Air Conditioning Dealer Uses Former Jobs as 'Yardstick'

Data Helps Firm Give Prospect Close Estimate

HAMPTON, Va.—The ability to instantly produce conclusive cost figures on air conditioning of a space similar to that operated by the prospect, has proven the most potent "sales clincher" in package air conditioning unit merchandising for McLean's, air conditioning dealership here.

McLean's, one of the largest appliance dealerships in the Virginia peninsula area, two years ago established a complete air conditioning department, and installs all types of comfort cooling from 1 ton units up through 50-ton central systems.

Package Chrysler Airtemp units, ranging from 5 to 15 hp., however, have been the major item on the sales agenda, according to Joe Mixon, sales manager—primarily because McLean's has concentrated on "the small businessman" as an ideal market for package air conditioning units.

McLean's has two "sales engineers," both of whom are thoroughly trained in the engineering aspects of air conditioning as well as being skillful salesmen and a three-man crew of factory-trained mechanics for service.

Each salesman "estimates the situation" when originally calling upon a prospect, and utilizes handy tables to suggest the proper-sized unit for the cubic footage of building, its heat load, amount of traffic, and other pertinent data.

When the installation is made, however, McLean's makes monthly call-backs, during which performance of the machine is checked against the estimate and a complete record of costs is tallied. All of this information is filed in the sales office, and utilized as handy references in making later sales.

Then, when a McLean salesman is calling on another prospective purchaser, among the files he is sure to find complete information on a similar installation, which will come within a few cubic feet of the space operated by the prospect.

For example, the firm recently air conditioned a large beauty shop, and used the figures which had to do with a haberdashery store as a "yardstick" for comparison.

The amount of traffic in the two types of businesses were found to be approximately the same, and while one building was slightly larger, a smaller air conditioning unit, due to better placement opportunities, would do the trick.

"In this way, keeping down-to-the-minute facts on every air conditioning installation, which usually deals with a firm already known to the prospect, will help to clinch many arguments, and dispel any dubiousness," it was summed up.

Schottenham's Opens In East

ALBANY, N. Y.—Schottenham's Appliance Store has been opened at 282 Central Ave. here.

Big PRICE CUT LIST REDUCED 1/3

On
JEWETT FREEZER SENTRY
From \$14.95 to \$9.95.
Now every serviceman should sell one on every Home Freezer call. It's a "push over" sale where valuable foods have been threatened by a breakdown. Every home freezer owner needs this warning device of mechanical failure. You know the owners. They need the Sentry. Self-contained... installed in two minutes... positive action... no thermostat... battery operated with 5 year battery life... 100 hour buzzer operation... extra profit margin... write for complete story.

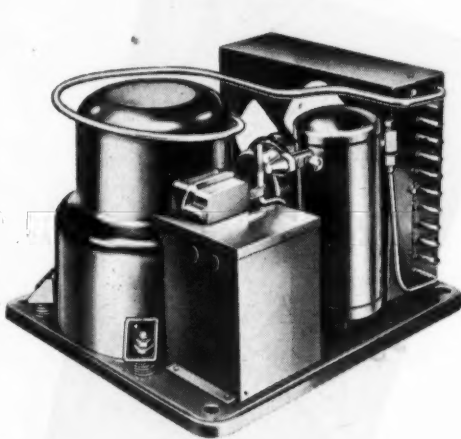
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Kelvinator Open Type Condensing Units (1/4 H.P. to 1 H.P.)



Kelvinator Water Coolers (Pressure and Bubbler Types)



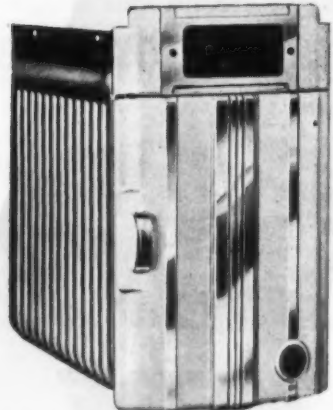
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for many happy returns!

Repeat customers? One easy way to get them is with top-performing Kelvinator products. Check Kelvinator items on every score—they're trouble-free . . . competitively priced . . . backed by a name that wins immediate acceptance. You and your clients can

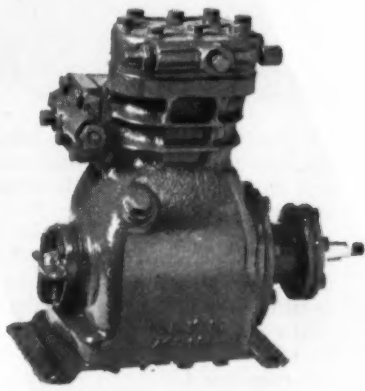
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Kelvinator Compressors (1/6 H.P. to 5 H.P.)

DEPEND ON KELVINATOR FOR ALL YOUR REFRIGERATION NEEDS

No Dirt, No Grease**To This Firm, Repaired Unit Means Clean Unit**

PANAMA CITY, Fla.—The fact that all compressors, flywheels, pumps, tubing, and other parts are immaculately clean before machines are considered repaired, has had a lot to do with the refrigeration service success of Southern Electric Co., Hotpoint dealership here.

Carrying a complete line of air conditioning equipment (with a York franchise), commercial refrigeration equipment, and domestic refrigerators, Southern Electric operates one of the largest service departments in the northwestern Florida peninsula area. In addition to service "on location," the company carries out a heavy program of shop work, including complete overhauls and rebuilding of compressors.

Even though a machine may be perfectly repaired, it is not ultimately satisfactory to the customer when returned greasy, covered with dust, oil drippings, etc., according to Mack Lewis of the concern.

"A lot of refrigeration users, commercial users in particular, have had the experience of sending a unit out for repair, only to find the original dirt and grease on the unit when the machine is returned," he said. "This often causes illwill, particularly when the owner is the type of man who likes to keep his store immaculately clean. Therefore, we try to measure up by returning the machine with the interior as eye-appealing as the exterior."

Used for the purpose is a cleansing agent called "Gunk," developed by the military services during the war expressly for cleaning grease-laden armament and airplane engines. Painted on with a brush, the compound quickly absorbs into an emulsion all oil, grease, or other petroleum soil on the unit. It is then washed off with water.

Results have been excellent all the way, according to Southern Electric, with many customers complimenting the firm on its exceptionally neat "cleanup job."

No extra charge is made for the cleaning service, inasmuch as it requires only a little extra work.

Precision's Bulletin Presents Industrial Thermometer Data

PHILADELPHIA—Complete data on liquid-in-glass industrial thermometers is presented in a tabular and sectionalized form in the new Bulletin "E" published by the Precision Thermometer and Instrument Co. here.

Graphic pages illustrate all basic models, sizes, forms, and attachments with simplified application data to enable the user to select the proper thermometer for any industrial installation.

Bulletin "E" has been designed as an all-in-one complete reference guide incorporating all necessary information for both engineering and purchasing departments.

NOW -- in One Book 1950 Trade-in Values**ONLY IN THE OFFICIAL 1950 NARDA TRADE-IN GUIDE**

Every salesman needs one for trouble-free, profitable trade-in. COMPLETE—AUTHORITATIVE. Latest prices on 6,000 appliances of 65 manufacturers. Still \$5. 6 to 25 \$4 each.

NARDA Guide Company 20 North Carroll St. Madison 3, Wisconsin. Rush me _____ copies of the 1950 5-in-1 NARDA Trade-In Guide.

NAME _____ STREET _____ CITY _____ STATE _____

What Happened In the Industry

As Reported In Air Conditioning & Refrigeration News

20 YEARS AGO . . .

Swift & Co. and Armour & Co., meat packers, were awaiting a Supreme Court ruling expected to allow them to go into the retail business. The plan was to sell packaged meat to the consumer to beat high distribution costs. Rumor had it that over 500 new meat markets would be opened in Chicago alone.

Kerotest Mfg. Co. had just completed an extensive addition to its building, which nearly doubled its brass department. . . . Larkin-Warren Refrigerating Corp. announced a new 100% vertical surface coil for dry expansion.

E. T. Williams, consulting engineer for Servel, Inc., designed a safety system for multiple installations to meet the standard set up by Dr. Arnold H. Kegel, Chicago health commissioner. . . . The NEWS published the "Weisbach Graphic Selector" for commercial job estimates.

. . . People

H. M. Stewart, vice president of McCray Refrigerator Sales Corp., was appointed general manager of that concern. . . . J. F. Fernald was commercial sales manager for Kelvinator Corp.

15 Years Ago . . .

Federal Trade Commission ordered Eastman-Scott & Co., better known as Home Research, Inc., to cease circulating its "Mystery" book containing false and misleading statements regarding the dangers of electric refrigeration.

The Southern Pacific Railroad announced that all of its crack transcontinental trains would be air conditioned by May of 1935 at a cost of \$2,000,000.

It was agreed that commercial refrigeration of 1-hp. or more was to be sold under the fair trade provisions of the Refrigerating Machinery Industry code. Those units powered with motors of less than 1-hp. were to be under provisions of the electric refrigeration code which was supplemental to the basic Nema code.

. . . People

F. E. Sellman was elected vice president of Servel, Inc. . . . Elliott Harrington was placed in charge of General Electric Co.'s air conditioning department. . . . S. E. Lauer was serving as general sales manager at York Ice Machinery Corp.

Neil Bauer was sales manager at Crosley Radio Corp. . . . W. E. Landmesser was manager of General Electric's commercial division.

10 Years Ago . . .

The Modern Kitchen Bureau announced that its 1940 campaign would contrast the new refrigerators with those offered in 1930 with the slogan: "Twice the Value at Half the Cost."

Kelvinator Div., Nash-Kelvinator Corp., introduced a special Christmas model with a medallion appropriately engraved to personalize the gift.

. . . People

S. F. Baker was named sales manager of Williams Oil-O-Matic Heating Corp. . . . John F. Dierkes, formerly sales representative for Kelvinator joined Krich-Radisco, Inc.

At the "Old Timers Reunion" held in the NEWS offices on Nov. 20, 1939 many comments were presented—

E. T. Williams, veteran refrigeration engineer, recalled that the flywheel on some old jobs weighed as much as the modern compressor. . . . Frank Peltier, Philco engineer jokingly complained that there is no reward in the refrigeration industry for the engineer—"The salesman" he said, "clean up the money while the engineer receives the backlash from the management."

A. R. Stevenson told of the development of the G-E monitor top. . . . Glenn Muffy, veteran Springfield, Ohio engineer, recalled that after making a survey of the refrigeration field, the *Saturday Evening Post* refused household refrigerator advertising.

Getting Ready for 'Old Customer Night'

Paul Erickson (left) of Kansas City, Kan., Jenkins Wholesale Co. district representative for Gibson Refrigerator Co., talks over details of "Old Customers Night," given by Jones-Mack, with E. J. Barker (right), Jones-Mack sales director, and Wanda Henry, home economist.

Firm Thanks Old Customers with Bargains; Result: 1,500 Buy \$7,500 in Merchandise

TOPEKA, Kan.—You can take it from Levi Jones of Jones-Mack, Inc., Gibson appliance dealer here, that old customers are the best asset a store owner can have.

And Jones is emphatic concerning the way to show appreciation to his

customers—especially his old ones who trade with him year in and year out.

The firm recently celebrated its third annual "Old Customer Night" and the event was the most successful in the history of the company.

More than 4,000 invitations were sent out to old customers who also were urged to invite a guest for the night. Admission to the store was permitted only by cards which were sent with the invitations.

Jones estimated that more than 1,500 persons took advantage of the bargains offered and more than \$7,500 worth of merchandise was sold. Included were four Gibson refrigerators and two Gibson electric ranges.

Featuring the program was a 10% discount allowed old customers and guests who made purchases. In addition, 10 free door prizes were awarded to those who were present. Prizes included six table lamps, a portable ironer, platform rocker, electric mixer, and electric pop-up toaster.

The store has 27 employees, including service and warehouse men, and all participate in sales on Old Customers night. In addition, Jones hired 10 more salesmen to help with business.

As a sales stimulation project, guests who attended with old customers were offered credit accounts and an easy payment plan. Wayne Bailey, store credit manager, reported that several new customers took advantage of the 10% discount and opened new accounts.

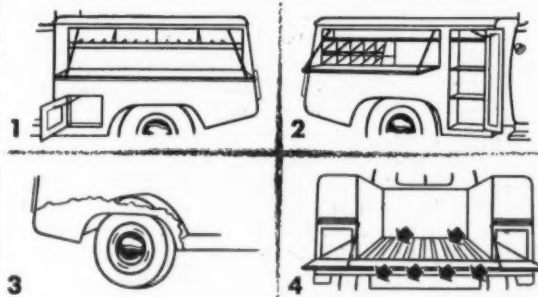
Advance invitations announcing the event led off with:

"Here is your ticket: This is our way of thanking you for your patronage. We also want you to be the first to see our wonderful new Christmas toys . . . just unpacked this week. On this night, Old Customers will be admitted to the store by card only . . . and will be given 10 per cent discount on anything in the store (fair traded items excepted by law)."

Lower your Service Costs

**SPEED UP CALLS...
REDUCE RETURN
TRIPS... ORGANIZE
YOUR SERVICE
MEN'S TIME WITH—**

POWERS
Service-Master
ALL PURPOSE SERVICE BODY

**COMPARE THESE FEATURES—**

- 1 Weather-tight compartment doors provide complete protection for tools and materials.
- 2 Built-in trays, adjustable shelves and parts bins.
- 3 Fully enclosed wheel housings provide added protection and rigidity.
- 4 Easily transferred from one chassis to another. Simply attached by six body bolts.

**TAKE THE FIRST STEP TOWARD
LOWERING SERVICE COSTS —
MAIL THIS COUPON NOW!**

America's Service-Shop on wheels!

Lost time on service calls eats up profits! That's why the "Service-Master" is a real money-saver. Completely compartmentized, it enables you to "take the shop to the job". There's a place for all tools, parts and supplies. Even the best servicemen are impressed with their increased output when using the "Service-Master"! It is an electrically-welded, all-steel body that's completely assembled at the factory—not shipped out in a number of pieces. It's so sturdy you can remount it time and again on new chassis. All that's required is removing six body bolts—it's that simple! Thus you can amortize the efficient "Service-Master" over many years—and really get your money out of it. Start cutting down your service costs now...



MAIL THE COUPON BELOW TODAY—
for SERVICE-MASTER literature applying to your business

McCABE-POWERS AUTO BODY CO.
5900 NORTH BROADWAY • ST. LOUIS 15, MO.

Please send me literature and further information about the POWERS "Service-Master" All Purpose Service Body.

Company _____
Individual _____
Street Address _____
City _____ State _____

Air Conditioned Cab for Slag Shovel

By R. A. Merck, Air Conditioning Engineer, Dravo Corp.

The first practical unit for conditioning air in the cabs of cranes that handle hot metal was installed in the cab of a steel mill ladle crane shortly after the war. In the few years since then many installations have been made in steel plants, iron and steel foundries, and hot metal forging shops.

Keeping the air in a crane cab at 80° when the temperature in which the crane is working may be as high as 160° not only means more healthful working conditions for the operator, but contributes materially to safety. A fatigued crane operator is a hazard to all others in his part of the plant. Because these cooling units also remove all dust, dirt, and noxious fumes from the air delivered to the cab, both the health and safety factors are increased.

Recently a new application for the air cooling and cleaning unit was found in the steel industry—conditioning the cab of a shovel handling slag. At some steel plants there are no nearby areas where the slag from the furnaces can be dumped for permanent disposal. In these cases, the molten slag is dumped temporarily into a pit near the mill, and permanently disposed of later. Often the removal is handled by a company that processes the slag for such products as building blocks, highway, and other construction materials.

This practice is followed at the Pittsburgh Works of the Jones & Laughlin Steel Corp. on the banks of the Monongahela River. Virtually in the heart of the city, only a few blocks from the Golden Triangle, there is no area within many miles that would be suitable for permanent disposal of the slag daily from the blast furnaces. The Duquesne Slag Products Co. removes this slag from the temporary pit and processes it for building blocks, highway surfacing materials, and other products.

The pit consists of two parallel trenches, 15 ft. deep, 30 ft. wide at the bottom, and 600 ft. long, that are connected at each end. The molten slag from the blast furnaces is hauled to the pit in slag ladle cars that run on the two outer brinks of the closed-hairpin-like pit.

Continuously, 24 hours a day, the slag is dumped into the pit from these cars. An electrically-driven shovel then picks up this slag and



Operator works in comfort and free from noxious fumes in the cab of this slag shovel of the Duquesne Slag Products Co. The Dravo cab cooling unit is mounted forward on the roof of the cab. Diffuser in the ceiling above the operator's head holds the temperature within the cab at 80° while loading hot slag into railroad cars.

dumps it into cable-drawn cars that run on a track at grade level between the two trenches. The slag is dumped from these cable cars into a hopper that feeds a crusher.

The hot slag in a solidified state in the pit is sprayed with water to aid in digging. Mingled with the steam that rises from the hot mass are the fumes that had been carried away by the slag. The concentrations of the fumes are such as to require that all electrical connections and terminals be coated with a special protective covering.

FANS NOT SUITABLE

Before installation of the air conditioner in the cab, two huge propeller-type fans were mounted on the shovel in an effort to blow away the fumes, dust and steam. The effectiveness of these fans depended much upon the direction of the wind, but at best only partially alleviated the conditions.

Besides the gases, the cooling slag gave off considerable heat, especially as the shovel exposed the hotter slag near the bottom of the pit.

When Duquesne Slag Products Co. purchased a new shovel recently, they called in the Dravo Corp. to install a Dravo crane cab cooler. Only minor modifications of the crane cab cooler were necessary to adapt it to the cab of the slag shovel.

The machinery and equipment of the shovel itself left no room in the machinery compartments to install the cooler. Therefore it was installed on the roof of the cab. This placement offered important advantages. With the unit directly on the cab roof, an eight-inch long duct was all that was needed to reach the air diffuser in the center of the ceiling.

In this position, the three-directional diffuser delivers 400 c.f.m. of air that actually washes the surfaces of the walls and floor of the cab, removing the heat they have absorbed from the hot slag. The return air opening is located 12 in. from the floor, and the duct is within the cab so that it need not be insulated except for that short section from the roof to the cooling unit.

Locating the unit on the roof of the cab also makes maintenance easier than it would have been in a confined place.

The shovel's original equipment includes its own filtering and air-handling system to supply air free of dirt to the machinery compartment for the protection of bearings, commutators, brushes, and other moving parts. This unit also is located on the roof.

AIR DELIVERED UNDER PRESSURE

An axial flow fan draws outside air through 4-in. thick graduated wire-mesh filters and delivers it to the shovel machinery compartment under a slight positive pressure. This pressure keeps non-filtered air from getting into the compartment.

The cab conditioning unit operates with three-fourths return air from the cab and one-fourth makeup air. This makeup air is obtained from the shovel conditioning unit and already has been filtered. However, it is again drawn through a 2-in. thick wire mesh filter and four activated carbon fume removal canisters before being mixed with the return air. The 25% of makeup air is considerably more than is required for ventilation, but is necessary in order to pressurize the cab and prevent infiltration of dust and dirt, fumes and gases.

After passing through the cold-section intake, this mixture of return air and makeup air is then drawn through another 2-in. filter, through the evaporator and then delivered to the diffuser in the operator's cab to complete the air flow cycle.

Cooling Unit Protects Operator From Fumes, 160° Heat of Slag Pit

Lake Charles Office Bldg. Uses 150-Ton A.C. System

LAKE CHARLES, La.—The new 10-story Pioneer Building here is air conditioned with a system that provides approximately 150 tons of cooling capacity, it was reported recently by the Marlo Coil Co., which supplied equipment used in the cooling system.

The structure is primarily an office building but has a luxurious private club occupying the entire top floor.

Marlo equipment employed includes eight F 1125 and one F 1250 floor type air conditioning units along with one C 500 ceiling type unit. The system operates with circulating water throughout.

Installation was handled by the Air Conduit Co. of Lake Charles. Weil and Moses of New Orleans were the consulting engineers.

Salmini Installs Cooling In Conn. Super Drugstores

MERIDEN, Conn.—The large modern super drugstore opened here by the Liggett Drug Co., Inc. is completely equipped with air conditioning installed by the J. P. Salmini Co., Inc., of Bridgeport, Conn.

The Westinghouse central plant system employed in this installation includes a 25-hp. hermetically sealed "Freon" condensing unit, a FE72E4 coil and an AV124 air-handling unit. The air conditioning equipment is mounted in a penthouse above the second floor.

Following this installation, the Salmini firm has handled the air conditioning of similar Liggett stores in New Haven, Conn. and Cranston, R. I., the company reports.

City Sales & Service, Inc. Chartered In Louisiana

LAKE CHARLES, La.—Articles of incorporation have been filed by the City Sales & Service, Inc., air conditioning, refrigeration, and electrical appliance firm.

Authorized capital stock of the firm was listed at \$15,000. Gedge Gayle is president of the firm, Leo B. Kaough, vice president, and Willis Weber Gayle, secretary-treasurer.

BRUNNER SINCE 1906 REFRIGERATION helps you serve better

Here is real Refrigeration Application help!



Even with a sound knowledge of refrigeration principles and a broad installation experience, refrigeration men rarely find the answers on any two jobs to be alike. That is why we have included a great deal of helpful, time-saving application data in this new Brunner catalog. Several pages of "cross section" illustrations help in showing customers exactly why you recommend a certain size and type of condensing unit.

Equally important are 22 pages of illustrations and capacity data on all the Brunner air and water cooled refrigeration condensing units.

BRUNNER MANUFACTURING CO.
Ulrich 1, New York, U.S.A.

● To responsible refrigeration men, this data will prove valuable. A note on your letterhead will bring a copy by return mail. No charge.



BRUNNER
SINCE 1906

AIR AND WATER COOLED MODELS
1/4 HP. TO 30 HP.

FREE—Your Copy of the 1949

AUTOMATIC CATALOG

AUTOMATIC'S new 164 page WHOLESALE Catalog is now off the press . . . yours on request! And, with it, you get our free price service, if you desire it. Write for your copy of the catalog now, on your business letterhead.

Automatic Heating & Cooling Supply

Div. of WEIL-McLAIN COMPANY
647 W. Lake St., Chicago 6, Ill.



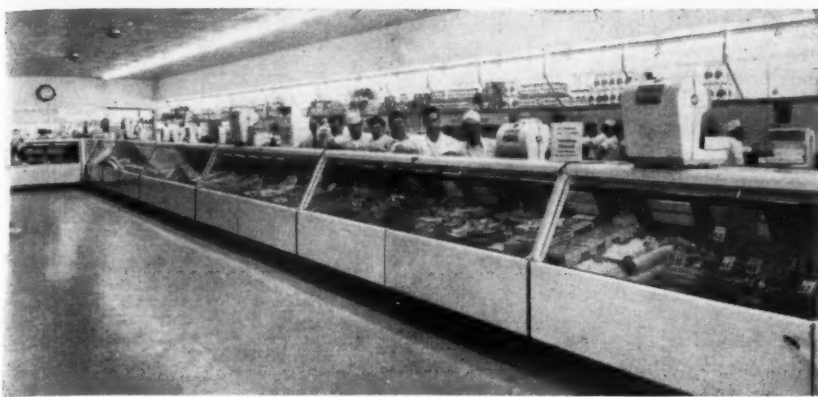
The Quality Standards of the Industry

ANSUL REFRIGERANTS are the undisputed quality standards of the Refrigeration Industry . . . and this enviable recognition is protected and maintained by strict laboratory control of every step in the manufacture of Ansul Sulfur Dioxide and Ansul Methyl Chloride. Every cylinder of Ansul refrigerants is individually analyzed and carefully inspected to safeguard the high standards of purity and dryness and to insure maximum safety in handling.

For more than a third of a century, Ansul has pioneered and led the field in the production of sulfur dioxide for refrigeration purposes. . . . Ansul methyl chloride has gained universal recognition in the industry for its unsurpassed quality.

ANSUL CHEMICAL COMPANY
REFRIGERATION DIVISION, MARINETTE, WISCONSIN
ANSUL SULFUR DIOXIDE, ANSUL METHYL CHLORIDE, ANSUL OIL, KINETIC'S "FREONS"

It Takes 25 Butchers To Handle Traffic



At Skips Market there are 81 ft. of meat cases plus a refrigerated display window at the front of the store.

2 Huge Walk-Ins Servicing Market's Meat Dept. Defrost Automatically Twice Daily

ROCHESTER, N. Y.—Skips Market, opened recently at 425 West Main St., features one of the most extensive applications of refrigeration in the retail meat field in western New York.

Cable-Wiedemer, Inc. of Rochester completely designed and engineered the layout of the meat market interior, along with Lewis Brew, the architect, and store officials.

The front of the market features a refrigerated display window, the only one of its kind in the city. This window display is serviced from inside the market by the use of sliding Thermopane doors.

Installed were 81 ft. of C. V. Hill & Co. model 672-OE cases. These cases are serviced by two walk-in meat coolers, each having a separate entrance. One cooler is 24 by 12 ft. and the other 28 by 12 ft. These are believed to be the largest meat coolers in the city.

The meat coolers are designed to

maintain a temperature of 30° F. by the use of Bush plasti-flash coils, each operated on a time clock. The system calls for two 1½-hour defrosts every 24 hours.

The long refrigerated service counter attended by 25 butchers is able to take care of a heavy volume of traffic at all times, eliminating confusion and congestion.

This straight-line type of operation is found to be the most efficient for the big meat market which handles a heavy flow of customers throughout the day.

At the rear of the market, at an elevated level, is a small office. Directly behind the office is a meat cutting room.

The market is brilliantly lit with fluorescent lighting engineered by the Rochester Gas & Electric Corp. An elaborate terrazzo floor is another feature. The flooring was imported from Italy and is said to be ideal for meat market operation.

Shaw Gets Pump & Compressor Sales Post with Worthington

HARRISON, N. J.—Appointment of A. M. Shaw as assistant manager, Pump & Compressor Merchandising Div., has been announced by F. J. Whelan, vice president, Worthington Pump & Machinery Corp.

Shaw will be responsible for the development of pump and compressor sales to original equipment manufacturers.

Neisner's Installs Self-Serve Meat Dept. In Rochester Store

ROCHESTER, N. Y.—Thirty-eight feet of refrigerated open self-service counters are employed in the new self-service meat department of Neisner's store in downtown Rochester.

This is the city's first self-service meat operation in the downtown area. The store also has a refrigerated cheese section.

Display Cases Distributed Under Whitman Bros. Label Permit Large Deliveries

NEW YORK CITY—Refrigerated showcases that eliminate practically all the moisture within their display areas are making it possible for the Stephan F. Whitman & Sons, Inc. to maintain the original freshness of its packaged candy. William F. Noonan, vice president in charge of sales, reported here recently.

Noonan said that the cases are being distributed to dealers under the Whitman label at \$494 each. The cases are 6 ft. long, 5 ft. high, and 32 in. deep. They have a capacity of 200 lbs. of candy.

Noonan declared that these cases have already been installed in 9,500 stores where they have been credited with doubling and tripling previous candy sales. He sees an eventual market of 25,000 of these units.

The advantages to Whitman of supplying its dealers with these cases are that demand for its candies has exceeded production, that larger quantities can be delivered to a retailer at one time, thereby saving on distributing expense, and that the freshness of the candy in the hands of the consumer encourages faster consumption.

Buffalo General Heating Files

BUFFALO—A business name has been filed in the Erie County clerk's office for the Buffalo General Heating & Refrigeration, 85 Woodlawn Ave., here, by Walter E. Maum.

Sunroc Serviceman's Uniform To Stress Sanitation Angle

GLEN RIDDLE, Pa.—Throughout its branches and sales agencies all over the country, the Sunroc Co. here, will introduce a new idea in the line of water cooler service.

Sunroc servicemen will be attired in spotless white coats symbolizing the importance of sanitation in connection with the use of drinking water.

The new uniform already is in use in the Philadelphia branch office and will be in evidence in the other branches and agencies as quickly as the coats can be made and distributed.

The standard service uniform is a white shop coat with the words "Sunroc Service" embroidered over the pocket.

Premiums on 'Grade A' Milk Seen Paying for Milk Coolers

LINCOLN, Neb. — Washington County Agent Sam Lingo has written a story for *Successful Farming* citing six farmers in that county who have switched to Grade A milk production and have therefore increased profits.

Grade A premiums are paying back the investment in mechanical milk cooling and other equipment required for a changeover to meet Grade A standards, Lingo stated. An additional premium, as listed by the farmers, is the saving in labor provided by the equipment they have installed in the continuously required milk room.

Regional Representatives



W. G. WRIGHT
Southeast

MAC K LAMBETH
Midwest

Refrigeration Corp. Names Wright, Lambeth Agents

ALBION, Mich.—Appointment of William G. Wright and Mack Lambeth as regional sales representatives for Refrigeration Corp. of America here has been announced by Edward R. Legg, president.

Wright will cover the southeast area and Lambeth the middle western states.

Wright has had many years' experience in sales work and refrigeration engineering. He served in both World Wars, and emerged from the last one a lieutenant colonel in the Corps of Engineers. Both the U. S. and British governments gave him citations for his contribution to refrigeration activities during World War II.

Lambeth, who started his career in refrigeration more than 20 years ago, has been associated with Grand Rapids Cabinet Co.

3 Big Reasons Why

HUNDREDS OF SERVICE MEN
PREFER TO SERVICE

HUSSMANN
REFRIGERATION EQUIPMENT

*They Admire the
Fine HUSSMANN Engineering*

Competent, experienced Refrigeration Service Men tell us that it's a real pleasure to work on dependable, HUSSMANN Equipment. It's simply the admiration one good workman always has for another's fine workmanship.

*They Appreciate the
Liberal HUSSMANN Contract*

Service Men who work for HUSSMANN in the field are protected by a contract which assures them complete protection as to rates, compensation, etc.

They Profit Through HUSSMANN'S Huge Volume

Because HUSSMANN Equipment is in such great demand—and because so many HUSSMANN installations are constantly being made—Service Men in every section of the country get regular, frequent calls that result in a dependable, consistent source of income.

HUSSMANN
REFRIGERATION, INC.

HUSSMANN BUILDING • ST. LOUIS 6, MO.
Canadian Subsidiary: Ruddy Freeborn Co., Ltd., Brantford, Ont.

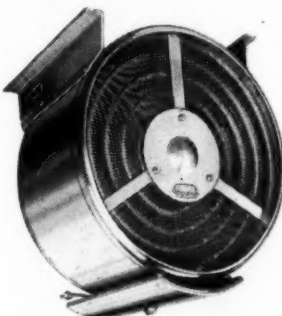
**Be SAFE
and SURE!**

Use PEERLESS

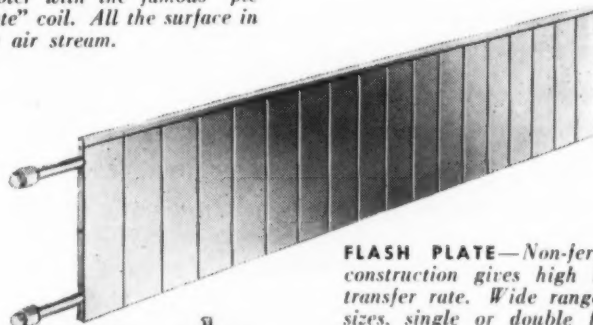
Products... it pays in the long run!

● The dependability of PEERLESS refrigeration equipment gives long life to your installations—pays off in customer satisfaction and increased sales. Every item in the PEERLESS Line, from expansion Valves to Flash Coolers, is expertly engineered from quality materials. You know too that you have the benefit of the latest tried and tested improvements; for PEERLESS always leads the field in new developments which improve performance. Specify PEERLESS for the best in refrigeration equipment.

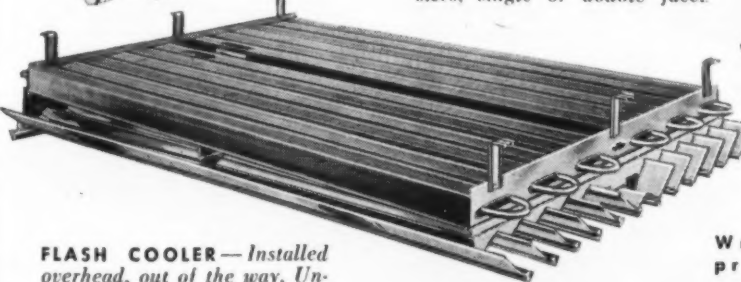
DOM COOLER—The ideal air unit for cooling in reach-in and walk-in coolers. A space-saver!



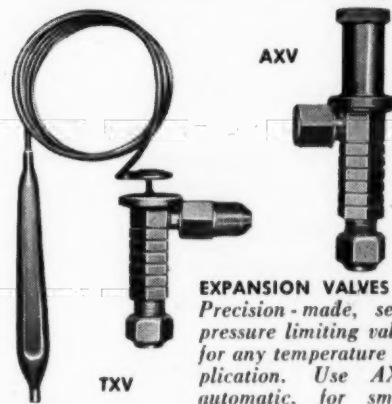
UNIT COOLER—The Unit Cooler with the famous "pie plate" coil. All the surface in the air stream.



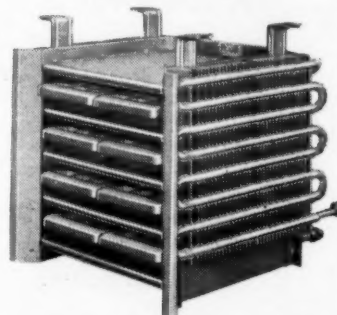
FLASH PLATE—Non-ferrous construction gives high heat transfer rate. Wide range of sizes, single or double face.



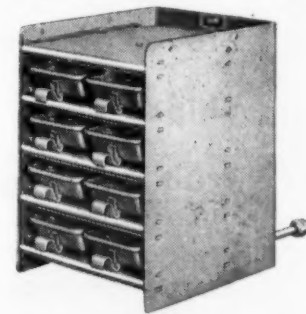
FLASH COOLER—Installed overhead, out of the way. Unrivaled for efficiency in high humidity refrigeration.



EXPANSION VALVES—Precision-made, semi-pressure limiting valves for any temperature application. Use AXV, automatic, for small, single evaporators.



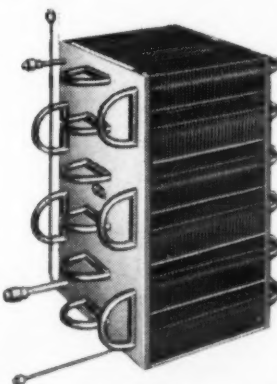
FINNED FASTER-FREEZE CUBE MAKER—Combines fin coil surface and cube freezing in a single balanced unit. Many sizes and capacities.



ICE CUBE MAKERS—Snapout—normal—heavy duty models. Top quality, all heavy aluminum, continuous copper tube.



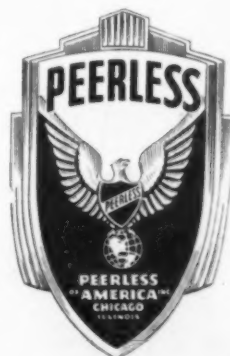
CAPACITY BOOSTER—Another product of superior engineering design. For the correctly designed installation.



FIN COIL—A coil for every application and space requirement with many dollar savings.

Write for catalogs giving prices and specifications

PEERLESS of AMERICA, Inc.
2901 LAWRENCE AVE. CHICAGO 25, ILLINOIS





World Import Restrictions Affecting Air Conditioning & Refrigeration Equipment

(7. Malayan Federation Through New Zealand)

With this article we present another in the special series of studies on the present-day import regulations pertaining to our industry. This information has been collected from all parts of the world with the active assistance of the U. S. Department of Commerce, Washington, D. C., and its District Office in Detroit. American export figures for the year 1948 will be added. Our readers are advised to retain these articles, as they appear, as a similar publication has, so far, not appeared in the press.

The countries will be treated in alphabetical order. Wherever available, late information—dated June to August, 1949—on developments of imports of the products of this industry from the United States will be added.

By Eugene Hesz, International Market Analyst and Instructor,
University of Detroit

MALAYAN FEDERATION

This young political unit consists of a combination of the former Federated Malay States and the Straits Settlements, which include Singapore.

The entire region is a British dependency, and the British have only this fall succeeded in re-establishing order. At the direct instigation of Soviet-directed communists, an uprising was artificially exploded, provok-

ing strong counter-measures by England.

On account of the adherence of this region to the British Empire, imports from this country are restricted despite heavy demand. Licenses and exchange permits are both necessary.

Under trade restrictions valid up to July 9, 1949, imports of domestic refrigerators were permitted on a quota basis, calculated with the help of 1939 and 1947 importations. With regard to other refrigerators: imports of purely commercial types of over 20 cu. ft. were permitted. Since July 9, an emergency ruling was issued and no further import authorization covering hard currency products was to be given, except for items of undisputed essentiality.

It may be expected that now, where the uprising is under control, this valuable market will re-open again. In this case, the official import guide, subdividing commodities to be imported from hard currency countries into classes, will probably be re-established in one form or another.

Refrigerators used to be under group A, covering permitted items. Air conditioning units were listed under group C and were to be judged on the merits of each case. The same applied to auxiliary equipment and parts.

American exports of products of our industry in 1948 were of good size:

Domestic refrigerators, \$902,000; parts for same, \$56,000; commercial refrigerators, \$119,000; miscellaneous and air conditioning equipment, \$69,000; room air conditioners, \$223,000; same for commercial use, \$17,000; auxiliary equipment, \$129,000; miscellaneous parts, \$13,000; and

U. S. Exports of Refrigeration and Air Conditioning Equipment to Mexico In 1948

Products	Units	U. S. Dollars
Domestic refrigerators	12,481	\$1,027,000
Domestic refrigerator parts	.....	360,000
Self-contained commercial refrigerators	1,755	467,000
Mechanical commercial refrigerators	135	94,000
Compressors and condensing units	2,290	468,000
Self-contained air conditioners		
Under 2 tons	325	68,000
2 tons and over	96	169,000
Miscellaneous refrigeration and air conditioning equipment	.....	316,000
Auxiliary equipment	.....	741,000
Assembly parts	.....	97,000
Replacement parts	.....	119,000
Ice making equipment	.....	308,000
Total	.....	\$4,234,000

ice making equipment, \$17,000. This adds up to a total of \$1,545,000.

MEXICO

Mexico, being situated geographically and economically in the backyard of this country, deserves more than average interest as a goal for our exports. The potential market has been discussed in these columns at an earlier date.

The actual market is suffering heavily from the reaction to the economic boom which characterized Mexican economy during and immediately after the last war. Apart from this, the able government, headed by Sr. Aleman, was seriously handicapped by radical labor currents and by the disastrous effects of the foot and mouth disease which is now under control.

It will be understood, therefore, that imports were very strongly restricted. A long list of products was published of all items for which import permits cannot be obtained. American exporters may obtain detailed information on this subject by writing to the Department of Commerce, Washington, D. C., Office of International Trade, American Republics Branch, or to its local field office.

The list of July 1, 1949, mentioned as not to be imported: refrigerators of iron, also if enameled, and those of wood with or without lining of common metal of all kinds, weighing up to 200 kilograms, or more than 200 kilograms. Also mentioned are refrigerators of iron or steel, also if enameled, in the operation of which liquid or gaseous fuels are used, weighing up to or more than 200 kilograms.

An exchange permit for Mexico, once the import is permitted, is not required.

American exports of products of this industry in the year 1948 to Mexico were very considerable (see table).

MOROCCO

The French Zone: This region has been dealt with under the heading French Colonies of this series.

The Spanish Zone: Import licenses are necessary. Once the license is granted, it carries the right to foreign exchange. Exports to Spanish Morocco are mostly contained in the American-Spanish export figures. The International Zone of Tangier is politically independent of Spanish Morocco.

Tangier (International Zone): This small territory has an importance for international trade which is quite out of proportion to its area and may be compared to the British crown colony of Hongkong, in this respect. Tangier being a clearing house for many kinds of international trade, it will be understood that neither import licenses nor exchange permits are required.

The exports from the United States to the region in 1948 amounted to: Domestic refrigerators, \$130,000; miscellaneous equipment and parts, \$11,000.

NETHERLANDS

Import licenses are needed, and so are exchange permits which are designated as payment attestats. All imports into the Netherlands are subject to import licenses, regardless whether the commodity involved is destined for domestic or commercial use.

Imports from the United States are almost exclusively financed by ECA funds, and commodities which are not essential to the country's reconstruction or to the expansion of its industrial potential are generally therefore not admitted.

The Netherlands has an industry of its own which manufactures a number of appliances. However, the country offers a good market for specialized equipment from the United States. The large Netherlands textile industries and modern chains of retail groceries form practical ex-

amples of where American equipment is essential.

Holland has inherited from the last war deep economic injuries, and, on top of that, a bureaucratic system of trade controls, all of which are retarding recovery.

In 1948, the exports from our industries presented the following picture: Domestic refrigerators, \$59,000; parts for same, \$12,000; commercial refrigerators, \$23,000; miscellaneous refrigeration and air conditioning equipment, \$148,000; auxiliary equipment, \$83,000; parts for assembly, \$10,000; replacement parts, \$7,000; and ice making equipment, \$1,000. Total: \$343,000.

NETHERLANDS WEST INDIES

The general ruling necessitates import licenses and exchange permits, excepting goods from the Netherlands, Surinam, United Kingdom, and British West Indies, and certain imports from the United States.

This latter exception is important, for, according to current practices, the Netherlands West Indies (that is Curacao, etc.) no longer imposes any restrictions on imports of manufactured goods, including refrigerators, etc., originating in the United States. Since economic conditions generally are favorable in this area, at present, the market appears open.

It is pertinent to note that the very large oil refineries on the islands of Curacao and Aruba pay relatively high wages. The standard of living on those islands, therefore, is better than in most of the other European possessions in the Caribbean area.

Thus, it will be understood that this small region, having a total population of not more than about 130,000 persons, nevertheless shows a favorable picture from the standpoint of our industry's exporters.

In 1948, we exported to this region 2,161 domestic refrigerators for a value of \$367,000, parts for same for \$43,000, commercial refrigerators for \$175,000, room air conditioning units for \$44,000, miscellaneous refrigeration and air conditioning equipment for \$75,000, auxiliary equipment for \$49,000, replacement parts for \$19,000, and ice making equipment for \$50,000, making a total of \$822,000.

NEWFOUNDLAND

Since March, 1949, Newfoundland has been a province of Canada. Import licenses and exchange permits are necessary for almost all imports. Once the import permission is granted, it carries the right to the foreign exchange in itself.

In 1948, we exported domestic refrigerators for \$152,000; parts for same for \$9,000; commercial refrigerators for \$27,000; miscellaneous refrigeration and air conditioning equipment for \$29,000; auxiliary equipment for \$21,000; assembly parts for \$4,000; replacement parts for \$4,000; and ice making equipment for \$23,000. This gives a total of exports to this region of \$269,000.

NEW ZEALAND

Import permits and foreign exchange licenses are required for all imports. The latter will be obtained automatically with the import permit.

The position in New Zealand is similar to that in Australia. No licenses are being issued during 1949 for imports of complete domestic or commercial refrigerators from dollar sources. In some cases, licenses may possibly be approved for certain replacement parts which are not made locally and which cannot be obtained from sterling sources.

In 1948, we exported to New Zealand 708 domestic refrigerators for \$105,000, parts for same for \$46,000, complete commercial refrigerators for only \$4,000, miscellaneous refrigeration and air conditioning equipment for \$116,000, auxiliary equipment for \$86,000, replacement parts for \$20,000, and ice making equipment for \$2,000, a total of \$379,000.

(To Be Continued)

Locker plants
Cold storage rooms
Freezer rooms
Walk-in coolers
Refrigerators
Frozen food cabinets
Steel partitions
Show cases
Telephone booths
Truck bodies
House trailers
Ovens (industrial)
Stoves and ranges
Ships
Fruit and vegetable storages
Farm freezers
Milk coolers
Picnic kits
Water jugs

National Gypsum Co., Dept. A-912, Buffalo 2, N. Y.
Gentlemen: I am interested in finding out how Gold Bond Zerocel can do a better insulation job for me. Send me a free copy of your new booklet, "Fireproof Refrigeration Construction".

Name Mfr. of
Company
Street State
City

Mail this coupon today
for the answer to your
low temperature
insulation problems!

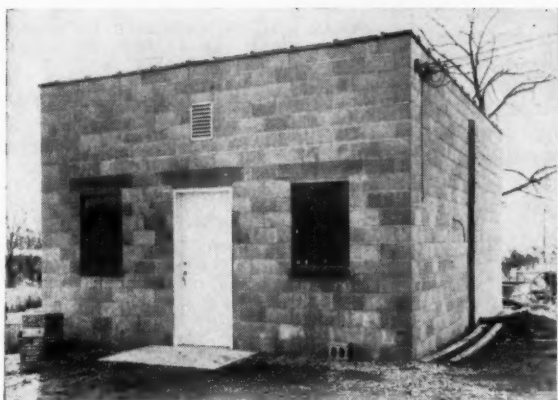
HERE are some typical installations in which Gold Bond Zerocel gives top insulation performance at lowest cost. Clean, easy-to-install Zerocel is completely fireproof and stands up best in service. Mail the coupon today for the complete story on how Zerocel can solve your low temperature insulation problem!

- Efficient, "K" factor of 0.24 BTU at 60°F.
- Fireproof
- Will not absorb moisture
- Odorless
- Will not settle
- Immune to fungus, rot and decay
- Easier application



GOLD BOND
ZEROCCEL
INSULATION

After Storing Fruit for Better Price, Farmer Uses Added Profits To Pay for Refrigeration



ABOVE: This refrigerated fruit storage plant was built by Lewis R. Gray, Michigan fruit farmer, in two weeks.



RIGHT: One of the forced air units that maintains proper temperature in the Gray storage plant which has a capacity of 1,000 bushels.

TRAVERSE CITY, Mich.—Refrigerated storage facilities can put a capital "P" in "profits" for the average-sized or small fruit grower.

Withholding an orchard's yield, or a substantial portion thereof, for a more favorable price later on in the season will give the grower with plenty of refrigerated storage a substantial edge on profits—particularly if he is not forced to sell out during the glut of harvest time.

Although the majority of fruit growers is aware that refrigeration is the definite answer to the storage problem, the initial cost of space and equipment comprises the basic stumbling block. This is especially true for the small fruit farmer.

However, there is a realistic approach. If the additional profits pocketed each season are balanced with the cost of proper refrigeration facilities, over a period of years the investment for equipment is within the reach of many growers.

For example, consider the case of Lewis R. Gray, an enterprising orchardist operating a farm in the

Michigan fruit belt near Traverse City. With the professional help and guidance of Paul Garthe, Frigidaire commercial refrigeration dealer in Traverse City, he installed a small fruit storage plant on his place.

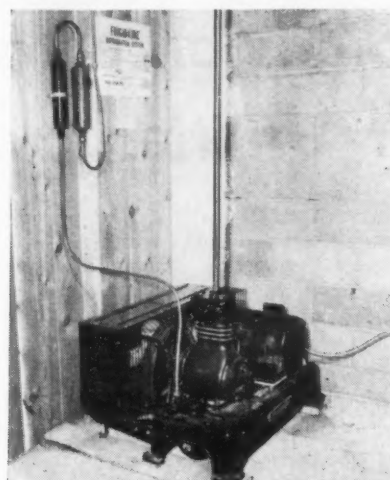
The installation was made last summer before picking time rolled around. Thus, when Gray was ready to harvest his crop of peaches, he was able to put a substantial portion of them into cold storage. By waiting for a more favorable market price, he actually doubled his receipts.

The peaches were out of the way by the time his crop of apples came along. Currently, Gray is storing about 1,000 bushels of apples, awaiting a better market than the one which confronted him earlier in the season.

Gray's total investment, including a concrete block building, cooler, insulation, refrigeration equipment, and materials, came to about \$3,000. This figure is extremely low for an installation of this kind, but Gray was able to make substantial reductions by employing local farm labor,

obtaining gravel from a nearby pit, and by putting his own good right hand to work.

The building, which was constructed of concrete blocks, is 20 by 30 ft. with an actual storage floor area of 20 by 20 ft. The roof is flat with 2 ft. of ventilated air space provided over the ceiling of the stor-



This 2-hp. Frigidaire air-cooled compressor operates two cooling units in the storage plant.

age room, reducing the sun effect and refrigeration load. Outside vents provide air circulation in this space.

Walls, floor, and ceiling were painted with a heavy asphalt sealer to provide an effective moisture-vapor barrier before studs and insulation were installed. Four inches of fiber glass comprise the insulation. The inside finish of the insulation in the refrigerated room is black asphalted Celotex with edges sealed with hydrolene to protect against moisture loss from inside of the cold room to the outside during cold weather.

Refrigeration equipment consists of a 2-hp. air-cooled Frigidaire reciprocating compressor and two Frigidaire forced air cooling units suspended from the ceiling. The refrigerated storage room is held to about 35° F. Relative humidity ranges from 81 to 92%.

New Agent To Take Over Sunroc Cincinnati Sales

GLEN RIDDLE, Pa.—Sunroc Co., here has announced the appointment of a sales agent in the Cincinnati area for its electric water coolers and water purifiers.

The Sunroc Cincinnati sales agency has taken over the sale, service, and rental of these products in a territory formerly covered out of the Cleveland branch, and partially by distributors and dealers.

Manuel B. Mayerson heads the new agency. Concentrated direct mail and newspaper advertising will support the activities of Mayerson. Offices are located at 424 Providence Bank building.

Texas Appliance Group Forms Houston Chapter

HOUSTON, Tex.—A Houston chapter of the Texas Air Conditioning and Appliance Association was formed Nov. 29 at a meeting of appliance dealers and distributors which was held at Don's Barbecue Steak House.

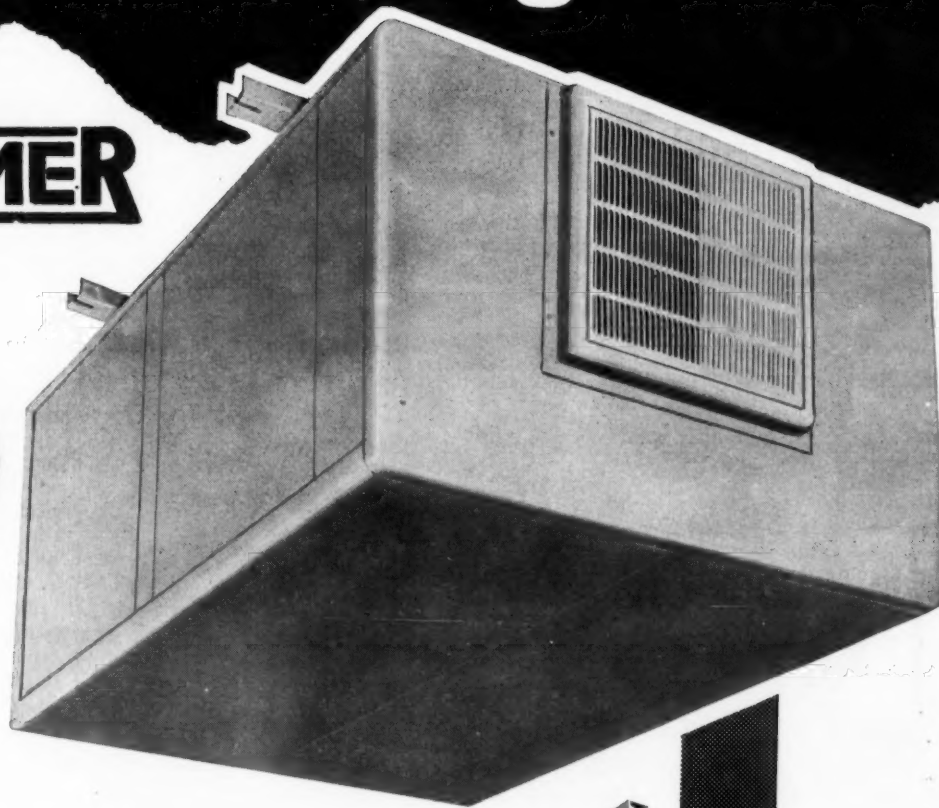
About 50 dealers, distributors, and utility representatives from Houston, Beaumont, Port Arthur, and Galveston attended the meeting at which better dealer-distributor relations were discussed.

Russell W. Nix, was named temporary chairman of the new Houston chapter.

Officers will be elected at a subsequent meeting.

Air Conditioning Units

by **KRAMER**

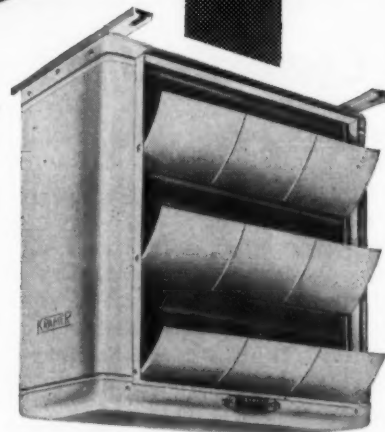


The Kramer Air Conditioning Unit...

Means a tremendous saving in valuable floor space—attached to the ceiling, out of the way. Sturdily constructed and efficiently designed to make all parts easily accessible. Hot water or steam coils and humidifier can be furnished to make it readily adaptable for year-round use. Used with or without ducting. Available in three to ten ton capacity. Here is an air conditioning unit that offers more to you and your customers.

The Kramer Comfort Cooler...

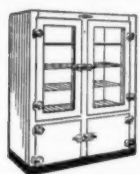
Means low cost comfort cooling. It releases precious wall and floor space. Adaptable to large installations by using two or more units. The cooler assures long, quiet, trouble-free service with a slow speed, totally enclosed, rubber mounted motor. It will pay to check these outstanding advantages. Kramer coolers mean better service for your customers, more profits for you!



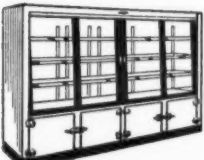
WRITE FOR BULLETIN AC-171

Before You Buy any Refrigerated Case or Cabinet

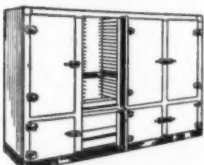
SEE THE NEW "P-H" "Lifetime" ALL PORCELAIN LINE



REACH-IN CABINETS



DAIRY DELICATESSEN CASES



DOUGH RETARDERS



FLORIST CABINETS

Now that buyers everywhere are demanding top value for their dollars, it will pay you well to investigate the famous Puffer-Hubbard lines before you invest a single dollar in commercial refrigeration equipment.

From their "Lifetime" all-porcelain or stainless steel exteriors and all-porcelain interiors to their exclusive Patented Grad-U-Matic air conditioning systems which give you complete control of humidity and air circulation as well as temperature, "P-H" cases and cabinets are the finest quality merchandise on the market today. A feature by feature comparison will prove to you that they are also top dollar values in long life, dependability and economical operation.

Whatever your refrigerating needs may be, it's ten to one that Puffer-Hubbard has a case, cabinet or cooler of the right type, size and capacity to exactly meet your requirements. Drop us a card for complete descriptive literature and the name of your local "P-H" dealer.



NEWEST ADDITION TO THE "P-H" LINES The "Lifetime" DRY BEVERAGE COOLER

Available in 50", 6', 8' and 10' Models—In black porcelain exteriors with stainless steel working surfaces or stainless steel exteriors—faster cooling—maximum capacity.

For Detailed Information Write to

PUFFER-HUBBARD
MANUFACTURING COMPANY
Grand Haven, Mich. Established 1898

KRAMER TRENTON CO. Trenton 5, N. J.

THERMOBANK-COOLMASTER-RADIAL UNITS-PANEL UNITS-CUBERS-FINISHED COILS-BARE TUBE COILS-HEAT INTERCHANGERS-CONDENSERS-Air Cooled-Water Cooled-Evaporative-WATER COOLING EVAPORATORS-BLAST COOLING COILS-BLAST HEATING COILS

More Spending, But--

High Production Costs, Consumer Price Resistance Seen Holding Prices Firm

NEW YORK CITY—An effective form of price control is seen operating in the current economic situation by John Block, president of Kirby, Block & Co., resident buying office here.

Block declared that prices will be unlikely to decline because of continued high costs and will not be able to rise because of stubborn consumer resistance.

"Pension plans and government old-age security payments might induce more spending and give less reason for savings," he commented. "Government spending will continue on a very large scale."

"This, plus veterans' bonuses will also help to stimulate spending. It is just a question as to what class of goods will lure most of the dollar."

"It behooves us to hark back to pre-war principles in order for 'retaildom' to maintain its proper place in our general economy."

Refrigeration Research, Parts Mfr., Moves To Brighton, Mich.

BRIGHTON, Mich.—Refrigeration Research, which manufactures machined parts for refrigeration industry has moved here from Highland Park, Mich. to occupy a new building that will expand its production facilities, E. D. Bottom has announced.

Big Market for Heat Pumps Seen In Southeast If Utilities Get Behind Promotional Program

ATLANTA — "If the privately owned utilities in the southeast would really support a promotional program on the heat pump there is a great future ahead for this particular type of power load which has a very satisfactory load factor and produces very acceptable revenues," Guy C. Hall, air conditioning engineer for the Florida Power Corp., told utility representatives attending the general sales conference of the Southeastern Electric Exchange here recently.

Hall gave a brief review of the progress of the heat pump in the tri-state area served by the Florida Power Corp. and the Georgia Light & Power Co. His talk slightly condensed, follows:

Our company has been active in the development and operation of the heat pump as an added revenue source since 1946. That year we had five commercial installations on our system, with no domestic installations.

34 Installations In Florida Power Territory

In 1947, we added seven domestic and four commercial; in 1948 we added five domestic and five commercial; to date this year we have added two domestic and six commercial, giving us a grand total of 34 installations, 14 domestic and 20 commercial.

These jobs total 544½ hp. Of the total, 14 are Marvair water-to-air units, 19 are Airtopia air-to-air, and one is a York water-to-air unit.

The largest residential project so far is a 7½-ton Marvair installed in a new home in Clearwater, Fla. This job was sold in direct competition to conventional air conditioning and oil heat for the sum of \$4,660. This is a very good indication that the cost of heat pump installations is competitive with other types of heating and cooling systems.

The largest commercial installation on our system and, I believe, the largest in the south, is a 150-ton York heat pump installation in the new Sears & Roebuck Co. store in St. Petersburg, Fla.

Shortages Prompt Job

The decision to use a heat pump for air conditioning and heating this building was due to the fact that the City of St. Petersburg refused to furnish gas for heating purposes, and, also, there was a shortage of oil at that time and the store had only a limited amount of space that could be used for oil storage.

This installation utilizes a centrifugal compressor, using "F-11" refrigerant with a heating and cooling capacity for the building of a ratio of three to one; that is, it only requires 50-hp. compressor capacity for the heating load.

The reason for this difference is the heavy interior lighting and people load in the building. The heat source for this job is a 325-ft. 14-in. well, with the waste water being discharged into a storm sewer.

We estimate an average annual consumption of 230,760 kwh., of which 215,760 will be on the cooling cycle, and 15,000 kwh. on the heating cycle, for a total annual cost of \$5,146 based on an earned average rate of 2.23 cents per kwh.

The latest, and one of the most outstanding, heat pump installations for 1949 in our own company buildings is a 25-ton Marvair. This job went into operation in May of this year. Heat source is a 275-ft. 6-in. well with a 5-hp. jet type pump.

Discharge water from this installation goes into an underground overflow tank. The lawn sprinkling system is supplied from this tank with an additional pump, and any overflow water is then drained from the tank by means of a tile drain to a storm sewer.

However, due to the distance of 300 ft. from the tank to the storm sewer, the lead-off drains from the tank have an opportunity to dissipate the majority of the overflow water back to the earth.

Another very interesting project, now nearing completion, is the one being installed in the administration building, gift shops, and restaurants of the famous Silver Springs resort in Ocala, Fla.

This installation will consist of two 25-ton Marvair water-to-air units using water from the springs for heating and cooling. This project will get nationwide publicity as thousands of visitors from every state in the Union visit this resort every year.

Public To Watch Heat Pump Data Being Recorded

This installation will be completely instrumented to obtain data that will be helpful to the general progress of the heat pump. This data will be visible to the public in connection with some advertising schemes. The installation is being made by the W. W. McMillan Co. of Jacksonville, Fla.

The W. W. McMillan Co. has done an outstanding job in the three southern states in which the firm has

the Marvair distributorship. With the total of 34 heat pump installations in the Florida Power-Georgia Power & Light Co. territories, and nine air-to-air installations in the state not served by our company, plus 65 installations made by McMillan, there is a total of 108 heat pump installations of which I have personal knowledge.

Of the total that McMillan has sold, 50 are located in the city of Jacksonville, Fla., even though this city has a municipally operated (electric) plant and is not in a position to actively participate in a promotional program.

This seems to indicate that if the privately owned utilities in the southeast would really support a promotional program on the heat pump there is a great future ahead for this particular type of power load which has a very satisfactory load factor and produces very acceptable revenues.

In addition to the makes of heat pumps previously named, it should be noted that the General Electric Co. has now developed an air-to-air unit.

There are, to my knowledge, six of these units installed in the south-

east. One of these is located in Birmingham, Ala., and at the present time tests are being conducted on this installation by the Southern Research Institute. However, at this time there is no technical or operating data available.

The first two years or so we accumulated considerable operating data on the installations in our company buildings and on customers' premises.

Due to the continued complete satisfaction with operating costs, we feel that this is no longer necessary. We find it much more effective to refer new prospects to some of the satisfied users.

As our cooling season is almost year-round, our cooling load is greater than the heating load and it is very seldom that auxiliary heat is required. Nor is it necessary to worry about the coefficient of performance, as our heat sources—both water and air—are plentiful.

However, with the increasing number of heat pump installations and conventional air conditioning systems using water for the heat source or condensing medium, we are becoming quite concerned as to how it may effect our water table.

John V. Schulze Co. Reopens

ERIE, Pa.—The John V. Schulze Co., 20 E. 8th St., has reopened its completely remodeled home furnishings store, featuring an extensive new appliance department.



A Complete Unit for a Complete job

You're always sure you're getting the very best in efficient, economical packaged air conditioning when you specify Governair—the original patented design!

This complete unit is easy to install—requires only simple electrical, water and duct connections. Built-in Evaporative Condenser keeps water usage down to a minimum. Governair engineering assures correct co-ordination and balance of all functions. Generously proportioned heat transfer surfaces provide maximum performance and economy.

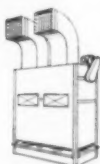
Choose Governair completely packaged air conditioners and you'll always do your best!



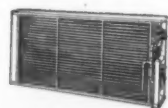
AIR CONDITIONER



EVAPORATIVE CONDENSER



UNIT COOLER



BLAST COILS FOR HEATING & COOLING

* ORIGINATORS OF COMPLETELY PACKAGED AIR CONDITIONERS

GOVERNNAIR

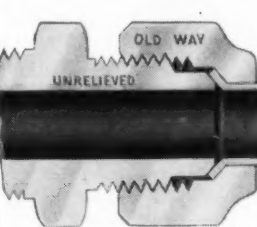
GOVERNNAIR CORPORATION • 513 N. BLACKWELDER • OKLAHOMA CITY, OKLA.



Guaranteed not to loosen, split, or crack

Priced no higher than regular flare nuts

● Yes . . . REMCO provided the show's really big news for both the manufacturer and the service engineer. These new-design "Frost-Tite" forged flare nuts can be used anywhere in the system . . . for every installation . . . for they cost no more than ordinary unrelieved flare nuts and will definitely insure against loosening up, splitting or cracking.

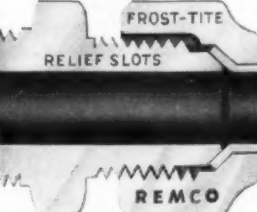


Unrelieved flare nuts loosen up because water completely fills the space between the nut and the fitting . . . then during the "ON" cycle this water freezes and expands, causes the nut to loosen or crack.

"Frost-Tite" flare nuts are an absolute "must" for the lowside, for the frost relief slots relieve all freezing force—therefore there can't be any loosening, splitting, or cracking.

Carried in stock by leading wholesalers everywhere.

Literature and Prices on Request



In "Frost-Tite" flare nuts the forged frost-relief slots provide relief for the expanding ice . . . thus no force is created and therefore there can be no loosening, splitting, or cracking.

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West Coast warehouse stock at: 2103 So. San Pedro, Los Angeles, Cal.
EXPORT DEPARTMENT: Melchior, Armstrong, Dessau—Ridgefield, N. J.

Do you use shafts?

Send your shaft problems to us! For more than 20 years we have been making precision shafts of all types for air conditioning and refrigeration compressors. We offer you the experience, the skill and the facilities to produce exactly the kind of shaft you need. Send blueprints for quotations on any type of shaft you may need.

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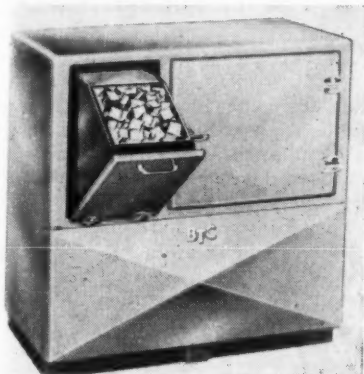
"NO-FROST" METHOD WITH SPRAY COOLERS

... gives always full capacity because there is no interruption for defrosting at sub-zero temperatures; protects quality in foods.

NIAGARA BLOWER COMPANY
30 Years of Service in Air Engineering
405 Lexington Ave., New York 17, N. Y.

What's New

BYC Ice Cube Maker Has Separate Storage Bin



BINGHAMTON, N. Y.—A new ice cube maker reportedly capable of producing 2,300 cubes or 250 lbs. of ice per day, has been introduced by the Brewer-Titchener Corp. The machine features plug-in operation, with no plumbing installations necessary.

A continuous supply of ice cubes is made possible by the storage bin, which eliminates opening the freezing section to obtain ice. At each freezing, 384 additional cubes are made in the separate freezing compartment.

The units' compact size—24 in. deep, 40 1/4 in. high, and 38 in. wide—enables it to be moved about easily or placed in areas where space is at a premium, according to the company. In bar installations, for example, the machine slides under the bar and does not extend into working space, it was pointed out.

The machine is equipped with 24 standard size, quick release trays which can make 384 cubes or 40 lbs. of ice in a single freezing. Cost per freezing is approximately 5 cents per bushel, subject to varying electric rates, the company said, adding:

"The cubes produced are solid, hard frozen, and will last for approximately one hour in a glass of 65° water."

Other features include a 1/2-hp.

nationally-known commercial hermetic condensing unit, warranted for a five-year period; metalized, full-flooded type plates "to insure faster freezing"; "Flotofoam" insulation; all-welded steel construction; and a silver "Hammertone" finish.

The ice cube maker is being offered with or without a condensing unit and will accommodate any standard 1/2-hp. hermetic or open-type unit. Equipped with expansion valve, temperature control, heat exchanger, and drier, it operates on alternating current; d.c. current special.

Refrigerated Sales Corp. at 19 West 44th St., New York City, has been appointed exclusive sales representative, and will handle all inquiries on the new unit.

Disc Type Thermostats Protected by Enclosure

ATTLEBORO, Mass.—Spencer Thermostat Div. of Metals & Controls Corp., has announced a new group of enclosed type fixed temperature snap-action Klixon thermostats.

These new thermostats have both contacts and thermal disc enclosed for protection against dust and dirt. Known as the C4370 types, these thermostats are suitable for such use as control of unit and space heaters, small water heaters, and other products requiring non-adjustable fixed temperature control.

Klixon C4370 enclosed disc type thermostats can be supplied with various temperature differentials and settings from -10 to 550° F., in either manual reset or automatic reset types.

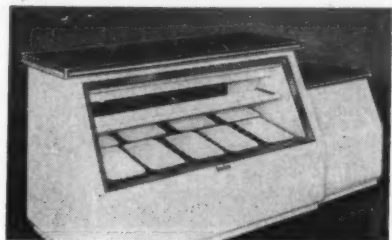
The thermostats can be mounted in recess wells, and castings, on flat surfaces or sheet metal enclosures, and in space for control of air temperature. They are available with bottom mounting flange, top mounting flange, and shoulder mountings.

These Klixon thermostats are listed under Underwriters' Laboratories for use where proper terminal enclosure is provided. This eliminates the need for further testing of the thermostat when applied to parts bearing Underwriters' listings.

The C4370 listing includes a motor load rating of 1/4 hp., 120-240 volts a.c., and a pilot duty rating of 125 volts-amperes, 120-124 volts a.c.

Additional Underwriters' ratings include 12 amperes, 120 volts a.c., and 6 amperes, 24 volts a.c. For d.c. ratings, recommended maximums are 12 amperes 30 volts d.c. and 1 ampere, 125 volts d.c.

All types are ground tested with 1,500 volts a.c.



'Triple Service' Display Case Features Work Top

PHILADELPHIA—A new "triple service" display case, model CT42, has been put into volume production by Jordon Refrigerator Co., Inc.

Model CT42 is a counter-high (42-in.) display case that provides refrigerated display and storage sections, and a work surface top that can be used for "easy-reach" display of non-refrigerated items, or for scale, slicer, and cutting board. The top is covered with polished, black Panelyte (plastic) bonded to heavy plywood and secured to the all-steel top of the display case.

Access to the interior display and storage sections is by full height sliding doors in the rear of case. Doors have three panes of glass mounted in hard rubber frames that slide on rollers in hard rubber tracks. This feature of sliding rear doors cuts down on the amount of back-of-counter space required and saves valuable floor space, Jordon stated.

Front of display section is a triple plate glass "Thermopane" unit and is installed with heavy chrome picture frame molding. Heavy-plated, rustproof wire shelves separate the display and storage sections. Display section is equipped with full length fluorescent lighting system and porcelain mezzanine shelf.

Proper temperature is maintained with two heavy duty coils and Jordon moisture control air baffle circulation, and is "scientifically engineered".

The model is 33 in. deep (at bottom) and is available in 6-ft. and 8-ft. lengths. Both sizes have 24-in.-wide Panelyte tops and are available for remote or self-contained installations. Self-contained models have the condensing unit installed in a counter extension and are equipped with hermetically sealed compressors.

Fountain-Mix Storage Freezer Cabinet Saves Space

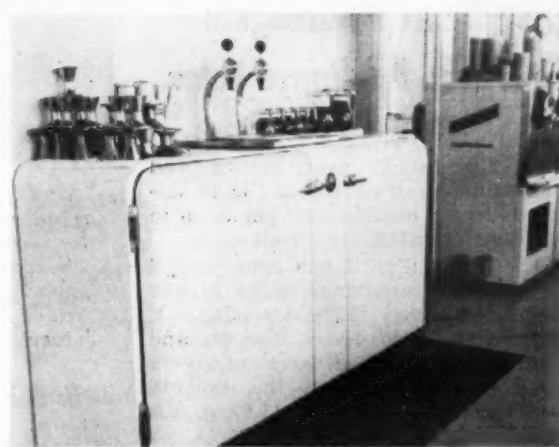
SEATTLE—The Sweden Freezer Mfg. Co., maker of soft ice cream machines and hardening-dispensing cabinets, has announced the development of a new fountain-mix storage cabinet designed for those ice cream freezer installations where both space and capital are limited.

The new cabinet combines the features of a mix holding cabinet and soda fountain in one compact unit and comes complete with remote condensing unit. It is also available without condensing unit for connecting to existing refrigeration systems.

The cabinet portion of the combination features large front-opening doors and a lift of only a few inches for ease in handling heavy mix cans. Furnished in four, six, and eight 10-gal. can sizes, the cabinet is also supplied with removable wire shelves for storage of mix in milk bottles, cartons, or other containers smaller than the standard 5 or 10-gal. cans.

The interior of heavy gauge steel is enamel finished while the cabinet top provides ample space for dishes, flavors, etc.

The soda fountain unit assembly



consists of water and soda draft arms and removable stainless steel crushed ice and drip trays. Of heavy gauge pressed stainless steel, the trays are recessed into the top to cool them, thus retarding melting of the crushed ice.

This new unit is refrigerated by a specially designed, compact ice bank type sweet water bath system which also cools the soda and fresh water.

This extra-large capacity cooling system provides a large volume of fresh and soda water at the right carbonation temperature.

The complete combination fountain unit and cooling system is also available without the cabinet.

Fruit Vending Machine Handles Apples or Grapes

LOS ANGELES—A fully automatic refrigerated fruit vending machine has been placed on the market after two

years of field testing by the Fruit-O-Matic Mfg. Co. here, a division of Kold-Krisp Apple Service, Inc.

Called the Fruit-O-Matic, the machine holds 208 pieces of fruit and can be set to handle anything from apples to grapes and cherries at proper, chilled

temperatures.

The machine stands more than 6 ft. tall, is 45 in. wide, and 24 in. deep. It has a triple plate, frost-free picture window behind which the fruit is displayed against a background of white refrigerated interior.

Four electrically controlled, separately operated, endless metal bands rotate the individually suspended stainless steel wire baskets that hold the fruit. Not only does this offer selectivity of commodity and price, but it enables four people to choose merchandise at the same time.

Loading is accomplished from the front by raising the glass door. The hermetically sealed refrigeration unit can be removed quickly.

Fruit-O-Matic Mfg. is located at 5225 Wilshire Blvd., Los Angeles 36.

DID YOU SHARE? IN THIS YEAR'S INCREASED VOLUME AND PROFITS ON... "Character"

- FULL VISION
- AIR CONDITIONED
- FLORISTS' DISPLAY
- REFRIGERATORS

Reversing the trend of business in general, florists bought more "CHARACTER" Florists' Display Refrigerators this year than ever before. There were very sound reasons for this. First, a "CHARACTER" Refrigerator is the finest make in displaying fresh flowers. It gives longer service and better conditioning results. So customers who have bought a "CHARACTER" Refrigerator keep on recommending to others.

Secondly, its beautiful design makes it nationally desired. Praises are always enthusiastic. Thirdly, it is backed by constantly increasing advertising expenditures. More and more ads appear in the country's leading florists' publications to send pre-sold customers into the nation's "CHARACTER" dealer showrooms. Fourth, and perhaps most important, "CHARACTER" is constantly introducing new features. "CHARACTER" dealers who have really merchandised "CHARACTER" Full Vision Air Conditioned Florists' Display Refrigerators, have secured simply amazing results. Yes sir! 1949 has been a banner year for "CHARACTER" Refrigerator dealers so far. And for the far-sighted ones who were wise enough to have a model or two on their showroom floor in anticipation of the big after holiday sales, still greater profits are ahead. Get back of "CHARACTER" Full Vision Air Conditioned Florists' Display Refrigerators for constantly growing business.



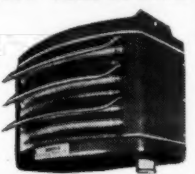
"CHARACTER" REFRIGERATORS CO.

47 W. 28TH ST. • NEW YORK 1, N. Y.
TEL: MURRAY HILL 6-4937-8

M&E DIFFUSING TYPE UNIT HEATERS

EST. 1866

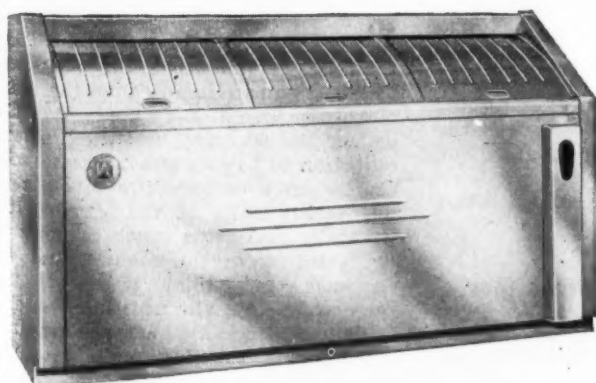
FOR LOW PRESSURE
STEAM & HOT WATER
60° Rounded front.
Easy to install and
Service. Hand-
somerly finished.



Wall Model 6 WH

Manufactured by
MERCHANT & EVANS CO.
PHILADELPHIA 46, PA.

AGAIN-La Crosse LEADS!



WITH NEW
CURVED
STAINLESS
STEEL
SLIDE-AWAY
DOORS -
FINGERTIP
CONTROLLED

La Crosse DRY STORAGE BOTTLE COOLER EFFICIENCY—BEAUTY—CONVENIENCE—ECONOMY

A companion piece to the new La Crosse Ice Cube Maker. Adjustable partitions and shelf offers greater capacity—Sturdily constructed—Recessed base—Size 4'—6'—8'—10'. Also available with high bake finish. Shown above is a 6' Stainless Steel model. Automatic lighting available with all Coolers; stainless or standard models.

Cube Makers—Direct Draw Dispensers—Tap Boxes—Drainboards

LA CROSSE COOLER CO.

2809 Losey Blvd. So., La Crosse, Wisconsin

Export Representatives: Melvin Pine & Co.
Cable Address: Eximport 80 Broad St., New York 4, New York

General Electric Appoints Four District Managers To Direct Appliance Sales

BRIDGEPORT, Conn.—The General Electric Co.'s appliance and merchandise department has appointed four men to new positions in its district sales organization.

H. Gordon Smith has been named manager of appliance sales in the Pacific district. Effective Jan. 1, Harlan C. Davis, H. A. Warren, and James M. Walker become managers of appliance sales in the central, southeastern, and Great Lakes districts, respectively.

Smith, who succeeds the late Ben Tassie, has been assistant district appliance sales manager in San Francisco since 1948. He joined General Electric as local manager in Jacksonville, Fla., in 1945, after serving with Matthews Electric Supply Co., G-E appliance distributor in Birmingham, Ala.

Davis, who came with General Electric in Kansas City in 1934, succeeds Warren as appliance sales manager in that city. He is presently central district representative of the G-E Home Bureau and several appliance lines.

Warren is being transferred to Atlanta, where he succeeds Walker. He joined General Electric in that city in 1935 and handled commercial refrigeration sales until he was moved to Kansas City ten years later.

Walker has been with the company since 1929 and has been manager of appliance sales in Atlanta for 12 years. He will make his headquarters in Cleveland, where he succeeds R. A. Buescher, who is being transferred to Philadelphia as assistant manager of appliance sales for the Atlantic district.

Three Incorporate Babcock Jewelry & Appliance Co.

BUFFALO—Babcock Jewelry & Appliance Co., Inc., has been incorporated here with capital of 200 shares. Incorporators are A. Irving Milch, Abraham Birnbaum, and Juliet Pratt.

TELLING and SELLING

A GUIDE TO SMART ADVERTISING AND MERCHANDISING PRACTICES

This series of articles comprising ideas and principles for the small retail or manufacturing business is written by James D. Woolf, who was for more than 20 years a vice president and director of J. Walter Thompson Co., one of the largest advertising agencies. Out of his experience embracing all types of advertising and merchandising he brings his counsel to the small businessman who must plan his own advertising and promotional efforts.

Tailor Your Advertising To Fit YOUR Business

Forty years ago the busiest and most prosperous food store in my town was named "The Sanitary Grocery."

The sanitation theme was dominant throughout—the store, inside and out, was painted a shining white; the two delivery wagons, as white as Arctic snow, were drawn by equally white horses; the salesclerks were aproned in spotless white; and every item of unpackaged food in the store was covered with glass or netting. The sanitation theme was constantly played up in the store's newspaper copy.

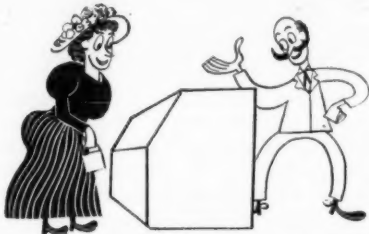
That, as I say, was 40 years ago. Today "The Sanitary Grocery" is still the most prosperous and busiest food store in that town.

Does your place of business have a "personality"? Does a central topic theme or core idea thread through your advertising? A business and its advertising is usually more effective when the selling appeal is centered around a single strong idea or group of closely related ideas.

PONDER APPEALS, MEDIA

Edward Lee, head of Lee Tractor Co., New Orleans, speaking of the continuing high cost of doing business, says in *Farm Implement News*:

"We haven't cut advertising itself. But we have studied results to make the same amount of money bring us more sales. . . . We have pondered over appeals, the media and other factors. . . . If some form of advertising doesn't pay, or produces fewer sales than other forms, we cut it out altogether and put the money



that was formerly doing half a job (or maybe no job at all) into a kind of advertising that does a complete selling job for us."

How long it is since you have locked yourself in your office against interruption and "pondered over appeals, the media and other factors"?

ADVERTISING CALLS FOR HARD WORK

Is your advertising what Charles Luckman, Lever president, calls "an integral part of your selling plans"? Do you give it—frequently—the same sober thought that you give to, say, buying and the training of your salespeople?

Or do you merely ask your newspaper to pick out some stock cuts and "fix up some copy to fit 'em"? Your advertising can be—if you really work at it—one of your most important activities.

"Whether an advertisement is welcome in the home or not depends on the advertisement . . . the advertiser should use every endeavor to make it so physically attractive as not to be distasteful to those who buy the papers or periodicals."

George French, a noted advertising man, wrote that 35 years ago. It seems to me that his advice has been ignored by many. Wretchedly bad taste and unlovely eyesores continue to smutch the pages of our newspapers and magazines.

For example, this advertisement in my local paper today: The picture—a cartoon of a dirty, dripping, unsightly old lady, shaking herself off milk as a dog shakes itself after a swim, crying "Whoops!" as her frowny wig sails off her bald head. Behind her a child screams, "Mommy! Grandma's been in the milk from SLADE'S DAIRY again."

This advertisement, ladies and gentlemen, is supposed to sell—or at least to create acceptance for—Slade's Grade A Pasteurized Homogenized Milk. Want a glass, Mr. French?

WIN BACK LOST CUSTOMERS

Every smart advertiser studies exhaustively ways and means of winning new customers. But have you made a study lately of lost customers?

An ad man friend of mine, David E. Fisher, tells me of a wholesale dry goods company that aimed a direct mail campaign—a series of letters and folders—to customers who had not bought for 10 years.

Eighty per cent of them answered, and the gross amount of business that came from those revived customers, as a result of finding and correcting the reason for their quitting, was more than a million dollars.

About a month ago my wife, sending in her key, gave up her locker at our local food-freezing storage plant. She's been a good customer, and one would think the proprietor would wonder why she quit. But so far we haven't been favored with even a penny postcard.

HERE IS RESTRAINT, FAIR PLAY

My hat is off to General Petroleum Corp. for this copy paragraph: "You should use the grade that performs best in your car. Automotive research engineers agree that once the maximum anti-knock requirement of a car is satisfied, there is no more performance to be gained by paying for a higher octane fuel. If your car operates smoothly and without knock on regular Mobilgas, then by all means save the difference."

How delightfully refreshing it will be when such restraint and fair play



in copy is not the rare but the usual thing.

TALK ACHIEVEMENT THROUGH PRODUCT

Generally speaking, it is my belief that so-called institutional advertising ought to talk about achievement in terms of product to the fullest extent possible.

The nobility and stature of an advertiser is likely to be more real to readers, and vastly more a matter that concerns them, when visualized for them by the concrete product itself—the object or thing they put up their money for.

A thick slice of bread, toasted brown, hot, fragrant, bright red with jam—well, a man can smell that, and taste it, and feel it warm his innards. But a man can't taste or smell an economic theory, or a business philosophy, or a platform of integrity and good works "since 1845."

Booklet Tells How Job Evaluation Benefits Salaried Employees

NEW LONDON, Conn.—"How Salaried Employees Benefit from Job Evaluation," by R. M. Schmitz and published by National Foreman's Institute, Inc., here, is a booklet for use by companies which plan to install job evaluation or have such a program now in effect.

The author is an authority on job evaluation, having set up many such programs in industry throughout the country. Generally, his greatest job has not been so much the actual routine of carrying out job evaluation as convincing salaried employees that they would benefit by it. Even after the program has been in effect for some time he finds he runs into a few skeptics who prevent both the company and the employees from getting the full benefits of job evaluation.

In four brief, clearly understood chapters Schmitz has ably put forth what job evaluation will and will not do for the employee. In addition he gives the steps for setting up the program and covers every individual that comes under it. Lastly, he gives the major advantages.

This 32-page illustrated booklet sells for 50 cents a copy, less in quantity.

Vacuum Cleaner Mfrs. Sell 272,520 Units In October

CLEVELAND—October vacuum cleaner sales, numbering 272,520 units, were higher than any other month this year except March and were only 3.2% under sales for the same month last year, C. G. Frantz, secretary-treasurer of the Vacuum Cleaner Manufacturers Association, reported recently.

Frantz added that sales for the first 10 months of the year totaled 2,367,762 units, 16.2% under the record-breaking volume chalked up last year.

October sales were 8.9% better than in September.

Heitz Named Bimel Sales Mgr.

CINCINNATI—Charles Heitz, who has been in the appliance distribution field in the local area for 25 years, has been appointed sales manager of the Bimel Co., 2600 Colerain Ave., wholesale distributor of York-Philco air conditioning and other equipment and appliances.

Meter Plan, With Twist, Produces High Volume Sales

'No Down Payment' Loses In Test of Pulling Power

ATLANTA—The advantages of both the meter-payment plan and standard instalment buying with monthly payments are combined in an appliance sales program which has been developed by J. M. High Co., Frigidaire dealer here.

The company, in considerably expanding merchandising operations during 1949, has carefully "pre-tested" every selling idea before putting it into effect.

When the meter plan developed along the Eastern seaboard, this was felt well worth special consideration. However, in order to effectively contrast the pulling power of the meter plan with the "no-down-payment" purchasing plan, it was determined to put both through a special test.

Half-page newspaper advertisements of identical size, each offering the same models of refrigerators at the same price, were run two weeks apart, in the same section of the newspaper, and otherwise made as identical as possible. One offered the refrigerators on the meter payment plan, and the other on the "no-down-payment" plan. Results were checked by interrogating responding customers.

25 CENTS A DAY APPEALS

"The meter offer won hands down," the store reported, "showing that the 25 cents per day payment plan appeals to at least five times as many customers as the no down-payment plan. Why this is so is difficult to determine, but the test not only proved that meter payments would be most popular, but also provided us with an idea to solve the meter collection costs problem."

After the test, High's began offering all of its major appliances on a meter plan. However, instead of using a system whereby the customer pays the entire purchase price of the appliance with daily deposits, the company promoted a "combination offer."

Under the system, a new refrigerator is delivered to the home, equipped with a meter which accepts a quarter a day for a period of 90 days. After this, the entire amount is credited to the customer's purchase account, as down payment, and the remaining payments for the refrigerator are billed monthly, or over whatever space of time desired.

PREFERRED DOWN PAYMENTS

"The principal feature of this system is that it permits the family to purchase a new refrigerator without scraping up a large amount of money for the down payment," it was explained. "Although the system offers no down-payment terms, we find, surprisingly, that the average homeowner is mistrustful of such terms, and much prefers to get at least the down-payment paid before the box is accepted."

"The 90-day plan offers the perfect solution, inasmuch as the customer usually has much more than the basic down-payment already credited at the end of the 90 days, and then has no objection to paying out the remainder of the price on monthly invoices or on weekly calls at the store. This, naturally, saves us much expense in collecting from the meters, and we can use the pulling power of the meter plan to make additional sales."

Volume since this offer went into effect has been little short of astounding, according to the company. The store was literally swamped with interested prospects, an unusually high percentage of whom "bought on the spot" after the meter plan was completed, it was said.



Yes, Yes, a thousand times... **YES**

Want to save time, trouble, and profit-eating call-backs on your refrigeration control replacements? Then make the Cutler-Hammer refrigeration control catalog your standard guide on replacements. Here you will find "specific-fit" units which are not merely listed but already manufactured by Cutler-Hammer for more than 1,000 individual refrigerator models which the industry has produced since 1925. No "modifying", no fussing, no compromises, when you put in C-H "specific-fit" replacement control units. And you'll also quickly see how the widely-known Cutler-Hammer name

(advertised in The Saturday Evening Post, Time, Newsweek, American Home, Better Homes & Gardens, House & Garden, etc.) builds customer confidence and good will. The C-H refrigeration control catalog, as well as the items you need, are available through your authorized C-H refrigeration wholesaler. Do not forget, this C-H refrigeration control line includes the outstanding general purpose replacement control (9521N9) for use with motors having "built-in" overload protection. CUTLER-HAMMER, Inc., 1362 St. Paul Avenue, Milwaukee 1, Wisconsin.

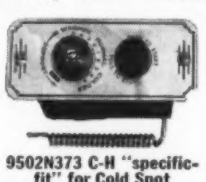
Here are typical examples from the broad line of C-H "specific-fit" refrigerator replacement controls.



9502N388 C-H "specific-fit" for Norge 1932-33-34 models



9521N64 C-H "specific-fit" for Norge 1938 models



9502N373 C-H "specific-fit" for Cold Spot 1932-33-34-35-36 models



9502N95 C-H "specific-fit" for Hostess 1933-34-35-36-37-38 models



9521N69 C-H "specific-fit" for Philco 1941 models



Featured by Cutler-Hammer refrigeration wholesalers and recommended by alert service dealers from coast to coast.

Sell a "TASTEMASTER" with every COOLER FILTER-DECHLORINATORS

Banish CHLORINE TASTE RUST AND DIRT

Better tasting water for more cooler sales

A Few Choice Areas Open for Factory Representatives

FILTRINE MANUFACTURING CO., BROOKLYN 5, NEW YORK

"Water Coolers and Filters for 40 Years"

4 Figure In Advertising Staff Reorganization



(From l. to r.) Charles G. Duy, Jr., manager of electric housewares and vacuum cleaner advertising and sales training; Robert M. Fichter, manager of major appliance advertising and sales training; H. Robert Cummins, supervisor of fan, refrigeration specialties, and Coca-Cola cooler advertising and sales training; and Ed J. Hegarty, director of sales training.

Five Agricultural Leaders Slated To Speak at Farm Electrification Conference

NEW YORK CITY—Five leaders in four key branches of agriculture and allied fields have accepted invitations, to date, to either speak or conduct informational panels in connection with the fourth annual National Farm Electrification Conference, it has been announced by program chairman L. R. Emmert, manager, rural electrification, Westinghouse Electric Corp.

They represent national farm organizations, agricultural science, farm management, education, and the farm press. The conference will be held at the Stevens hotel, Chicago, Dec. 21 and 22, with a pre-conference round table session Dec. 20.

Those so far booked for major addresses include Paul D. Sanders, editor of *Southern Planter* magazine and master of the Virginia State Grange; Hassil Schenck, president of the Indiana Farm Bureau and a director of the American Farm Bureau Federation; John W. Ticknor, treasurer and assistant to the president of the National Farm Chemurgic Council; B. C. Perkins, of Doane Agricultural Service, Inc.; and Paul A. Miller, extension rural sociologist, Michigan State college.

The fifth top leader, George W. Kable, editor of *Electricity on the Farm* magazine and a pioneer in the electrification movement, will direct an open forum the night of Dec. 21.

The pre-conference session on Dec. 20 will feature the presentation of new farm electrification motion pictures, visual aids, and demonstrations on such subjects as adequate farmstead wiring, electric welding, and electric farm kitchens, and an open discussion vital to agriculture and the rural power program.

A number of other speakers, panels, and program features also are planned for the conference. One of the panels—"Getting Information For Planning To The Farm Family," will be headed by Kenneth F. Warner, extension specialist, U. S. Department of Agriculture, and another on "The Man Who Sells The Farmer," by F. E. Watts, executive assistant, *Farm Journal*.

H. P. Rusk, dean of the University of Illinois, College of Agriculture, is chairman of the meeting.

B. T. Roe Joins Tracy Mfg. As Sales Vice President

PITTSBURGH—B. T. Roe has been appointed vice president in charge of sales for Tracy Mfg. Co. here, announced President Charles Wiener. Roe, widely known in the electrical appliance distributing field, assumed his duties recently after resigning as vice president and general manager of J. N. Ceazan Co., Pacific Coast appliance distributor. Earlier, he was director of distribution for the Crosley Div., Avco Mfg. Corp. He started his career in the appliance business with Nash-Kelvinator, as district manager.

Washer Sales Hit High Peak For '49 During October

CHICAGO—Factory sales of ironers hit their highest peak of the year during October, when 36,045 units were sold, the American Home Laundry Manufacturers Association reported recently.

They were 30% over September and 6.4% under October last year. Standard household washer sales for the month numbered 333,728 units, 6.6% less than in September and 12.7% below October, 1948.

Sold Salesmen Sell Automatic Washers

ATLANTA—More automatic washers than conventional washers were sold by the Georgia Power Co. during the first 10 months of this year, W. B. Farnsworth, director of the utility's merchandising division, reported recently.

Utility salesmen sold 954 automatics—Laundromats and ABC—and 945 conventional-type washers during the period, he said.

He attributed the greater sales of automatics to the fact that the salesmen have been completely sold on the automatics.

Wilson Heads List of New Appointments as M-H Expands Divisional, Field Operations

MINNEAPOLIS—A number of personnel changes, including new regional, branch, and division managerships, have been announced by the Minneapolis-Honeywell Regulator Co. According to Thomas McDonald, sales vice president, the moves were made necessary because of expanding sales and service activities of Honeywell and its industrial division, Brown Instruments Co., in various sections of the country affecting several of the company's divisions.

Kent L. Wilson has been named manager of the company's newly formed manufacturer's division. He will assist A. H. Lockrae, vice president in charge of the heating controls division and will be concerned primarily with manufacture of heating equipment.

Wilson, an engineering graduate of the University of Minnesota, joined Honeywell as a student engineer in 1935, served as sales engineer in Philadelphia and Indianapolis, and in 1941 was promoted to industrial sales manager in Cleveland. In 1944 he was made Detroit branch manager, and in 1948 was named southwestern regional manager with headquarters in Dallas.

T. S. Carley, who has been Detroit branch manager will succeed Wilson as head of the Honeywell-Brown office in Dallas. Carley joined Honeywell in 1935 in the production department as an apprentice, and in 1939 was transferred to sales and subsequently moved to San Francisco as a sales engineer. In 1944 he was returned to Minneapolis as sales manager of the stoker and wholesale divisions, and in 1948 moved to Detroit as branch manager, which position he held until his new assignment.

Karl Schick, former southwestern regional manager, is rejoining M-H after a year as a distributor for several companies in the Dallas area. He will be sales manager of the company's gas controls division. Schick originally joined the Honeywell sales organization in 1933 and worked in the Cleveland, Cincinnati, and Kansas City offices. He was also western zone manager of the company's Moduflow Div. and manager of the railroad controls division before going to Dallas as regional manager in 1947.

J. A. DePuy has been promoted to managership of the Detroit office, succeeding Carley. DePuy is a graduate of Union College and worked for General Electric and York

Ice Machine Co. before joining Honeywell's New York office as an instrument engineer in 1936. He was made branch manager of the Cincinnati office in 1943, and has remained in that capacity until his latest transfer.

Jack Richardson, who has been manager of the industrial division's sales department in Detroit, will succeed DePuy as the Cincinnati Honeywell-Brown branch manager.

James Dunlap, who has been with the Toledo office, has been named industrial division sales manager in Detroit, and Harry Merkel, of the Pittsburgh branch office, has been transferred to Toledo in charge of industrial sales.

October Dealer Sales Rise 6% over September

WASHINGTON, D. C.—October sales of independent household appliance dealers rose 16% over the same month a year ago and 6% over September, but sales for the first 10 months of 1949 ran 5% behind the like 1948 period, according to the Bureau of the Census.

Sales in October of all types of independent retail stores were down 6% from October, 1948, and up 2% from September, with sales in the first 10 months of this year 2% below the corresponding period a year ago, the bureau's monthly report showed.

Philco Declares 50-Cent Quarterly Stock Dividend

PHILADELPHIA—The board of directors of Philco Corp. have declared the regular quarterly dividend of 50 cents per share on the corporation's common stock, payable Dec. 12 to holders of record Dec. 3.

The board also declared the regular quarterly dividend of 93 1/2 cents per share on the corporation's preferred stock, 3 1/2% Series A, payable Jan. 1 to holders of record Dec. 15.

Behr Heads Artkraft Promotion, Advertising

LIMA, Ohio—Artkraft Mfg. Corp. here has announced the appointment of Dick Behr, formerly head of public relations, as sales promotion and advertising manager.

Electric Jubilee Helps Nashville Set Sales Record

NASHVILLE, Tenn.—A new October record for sales of ranges, refrigerators, water heaters, and home freezers was set by local dealers this year, the Nashville Electric Service reported recently.

Said the utility: "It appears that the 'Electric Jubilee' promotions supported by a large amount of extra dealer advertising played a prominent part in creating a new October record."

Here are the figures compared with those of October, 1948:

Appliance	Oct. 1948	Oct. 1949
Ranges	390	645
Water Heaters	336	456
Refrigerators	467	780
Home Freezers	7	25

As compared with September, however, ranges and water heaters increased their volumes.

Admiral Elects Four Veeps, Promotes Four Executives

CHICAGO—Ross D. Siragusa, president of Admiral Corp., has announced that the Board of Directors elected four Admiral executives to the post of vice presidency. These men have been associated with the company since its inception in executive capacities.

The men elected to the newly-created posts of vice president are: Richard F. Dooley, vice president in charge of real estate; Frank J. Kazda, vice president in charge of purchasing; Cy S. Rossate, vice president in charge of production; and Kenneth D. Turner, vice president in charge of engineering.

Other promotions include George E. Driscoll to secretary, Edgar C. Bauler to comptroller, Robert M. Jones to director of engineering—Electronics Division, and Evans T. Morton to director of engineering—Major Appliance Division.

Parsons Appointment - -

(Concluded from Page 1, Column 4) supervising all sales activities in Texas, Oklahoma, Louisiana, Arkansas, and New Mexico.

E. M. O'Connor, Dallas district portable appliance manager will succeed Beyers as southwestern regional manager on Jan. 1.

B.A.C.

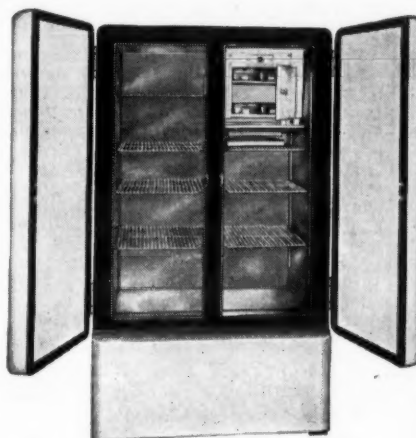
... The Most Extensive Line of

Evaporative Condensers

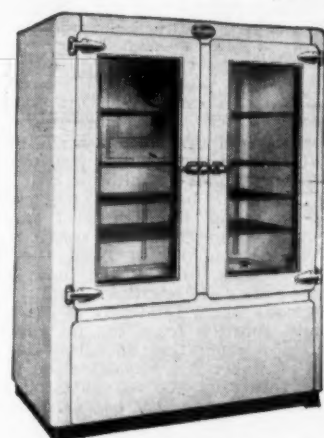
(Sizes 10 to 210 T.R.)

BALTIMORE AIRCOIL CO., INC.

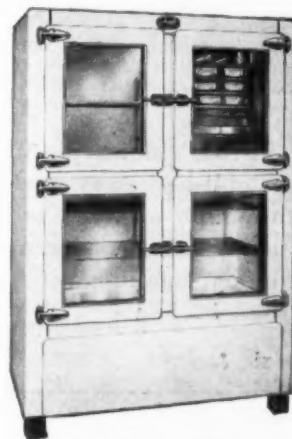
709 WEST PRATT STREET • BALTIMORE 1, MD.



MODEL 20SD
20.2 CUBIC FOOT



MODEL 2FGF
25 CUBIC FOOT



MODEL 3AGI
30 CUBIC FOOT



MODEL 4FDF
45 CUBIC FOOT

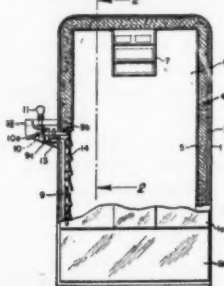
Manufacturers Agents Wanted for Several Territories.

Gloekler REFRIGERATOR COMPANY
ERIE • PENNSYLVANIA

PATENTS

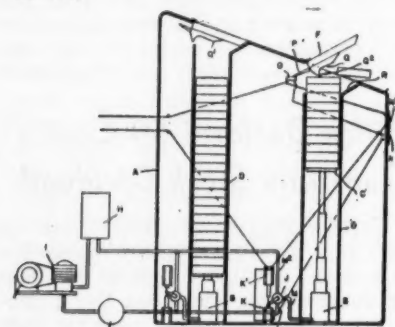
Week of August 16
(Continued)

2,479,189. WATER-COOLING ATTACHMENT FOR REFRIGERATORS. George H. Von Koscielski, San Diego, Calif. Application Aug. 27, 1945, Serial No. 612,862. 1 Claim. (Cl. 62-89.)



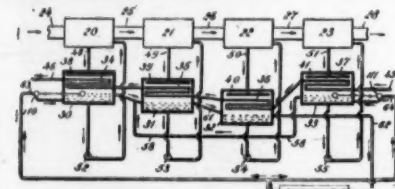
A combination refrigerator and water cooler, comprising a cabinet having a wall, an inner liner for said wall, a pipe including an inlet and outlet, a portion of said pipe being within said wall, adjacent said inner liner and convoluted in shape, a drinking fountain communicating with said pipe outlet, and an overflow drain pipe, a portion of said liner adjacent said convoluted pipe being foraminous.

2,479,396. PACKAGE DISPENSING APPARATUS. Augie L. Nelson, Grand Rapids, Mich., assignor to Hayes Mfg. Corp., Grand Rapids, Mich., a corporation of Michigan. Application Nov. 13, 1945, Serial No. 628,242. 5 Claims. (Cl. 312-69.)



1. A dispensing means for packages of frozen goods comprising a refrigerated storage cabinet for a stack of packages, a hydraulic jack for said stack, manually controlled means for operating said hydraulic jack to raise the stack, a door normally closing an opening in the cabinet above said stack which door is opened by the pressure of the uppermost package when the stack is raised, and means actuated by said door when opened sufficiently for the ejection of a package for interrupting the upward movement of the jack.

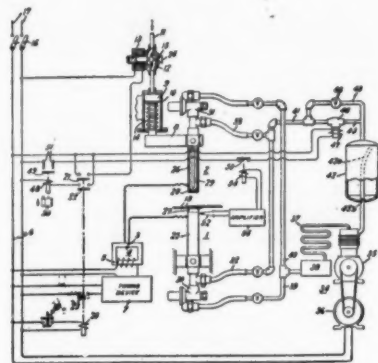
2,479,408. MINE VENTILATION. Allan S. Richardson, Butte, Mont. Application March 18, 1944, Serial No. 527,125. 9 Claims. (Cl. 183-120.)



2. The method of cooling warm humid mine air which comprises passing the warm humid mine air into contact with several separate bodies of hygroscopic solution in series, the bodies of solution being in the mine near the active working area, flowing liquid from the first and last bodies to at least one intermediate body of solution, said intermediate body being relatively dilute, passing dilute solution from the intermediate body to a regeneration operation for the removal of water and concentration of the solution, returning the concentrated solution to the first and last bodies, pumping cooling water from a source outside the mine in heat exchange contact with the separate bodies of solution to remove heat therefrom and pumping the heated cooling liquid out of the mine to transfer the heat to the atmosphere outside the mine.

ABSTRACTS OF APPLICATIONS

759,053. REFRIGERATING MACHINE. Harold F. Lathrop, Philadelphia, Pa., assignor to General Electric Co., a corporation of New York. Filed July 5, 1947. Published Aug. 16, 1949. Class 62-3.



The application discloses a refrigerating machine employed for cooling the electrodes of a resistance welder and which is required to handle sudden substantial changes in load. The refrigerant circuit includes an automatic expansion valve at the inlet of the evaporator which tends to maintain a substantially constant pressure in the evaporator. A surge chamber is located between the outlet of the evaporator and the intake of the compressor and a selective control is provided to connect the evaporator to the surge chamber either in open communication or through a restriction. During operation in the restricted control position the pressure in the surge chamber is lower than that in the evaporator. Thus on shifting of the control from its restricted to its open position, there is produced a sudden reduction of pressure in the evaporator. This refrigerating system provides sudden cooling of the welding electrode immediately upon initiation of the welding operation.

The apparatus operates as follows:

The closing of switch 16 completes a circuit through wires 6 and the compressor motor. Following this, the closing of hand switch 15, which may be locked, energizes solenoid 20, thereby energizing solenoids 13 and 47 and starting timer 7 in operation as a result of closing switches 23, 22 and 21. Current then flows through timer 7 and the primary winding 5 of transformer 4 for a period of time required for the proper welding of plates 18, which are to be united. Secondary winding 3 supplies current to electrodes 1 and 2, while solenoid 13 moves the shiftable element of valve 12 to close outlet 15 and permit compressed air to drive piston 9 downwardly to depress the electrode 2.

The continuously operating compressor 35 supplies refrigerant to condenser 37 and liquid refrigerant flows through receiver 38, pipes 39 and 40 and expansion valves 30 and 31 to tubes 29 of electrodes 1 and 2, while vapor is withdrawn from the electrodes through elements 32, 33, 41, 43, surge tank 42 and conduit 42a. Due to setting of hand valve 45, the pressure in surge tank 42 is much lower than in electrodes 1 and 2.

The closing of switch 22 energizes the solenoid 47, thereby opening valve 46 in line 44 and permitting heavy withdrawal of vapor from the electrodes due to the low-pressure in the surge tank, and such closing also energizes solenoid 48 moving blade 49 into engagement with elongated contacts 51.

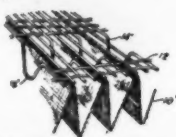
Upon completion of the welding operation, hand switch 15 is opened, deenergizing solenoid 20 and also solenoids 48 and 13 through the opening of switches 21 and 22. However, dashpot 50 retards the opening of switches 49 and 51 and the circuit through the solenoid 47 is therefore kept closed for a short time after switch 15 is opened. Meanwhile valve element 24 is shifted to vent cylinder 10 and spring 14 raises electrode 2, the air above piston 9 escaping through port 15. With the closing of valve 46, operation of compressor 35 again produces a large differential between the electrodes and the surge tank.

Lubricant may bleed through opening 42b from the surge tank into the suction conduit.

Thermocouple 52 operates through amplifier 55 and solenoid 54 to open switch 53 and deenergize solenoid 47 when the tip of electrode 1 becomes unduly cold as a result of valve 46 being kept open for a protracted period.

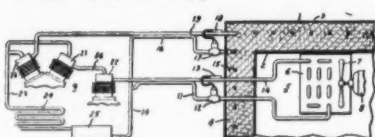
Week of August 23

2,479,722. FILTER CONSTRUCTION. Jacob K. Brixius, Cleveland, Ohio, assignor to Air-Maze Corp., Cleveland, Ohio, a corporation of Delaware. Application Jan. 8, 1945, Serial No. 571,766. 3 Claims. (Cl. 183-71.)



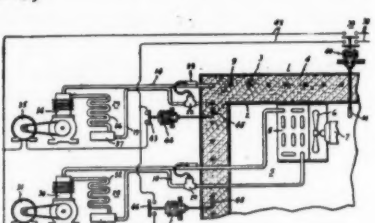
1. In combination, a frame, a filter element in said frame comprising stiff sheet material folded in a series of parallel zig-zag folds, there being a predetermined number of said folds per unit of distance across the face of said element, a screen of woven stiff filaments extending in a general plane across one face of said element and in substantially fixed relation to said frame, some of said filaments being parallel to said folds and other of said filaments in crossed relationship, and a portion of said parallel filaments only coordinated in number with the number of said folds being bent out of said plane and between said folds for holding the latter in position.

2,479,732. LOW-TEMPERATURE REFRIGERATING SYSTEM. Wayne E. Dodson, Caldwell, N. J., assignor to General Electric Co., a corporation of New York. Application Aug. 5, 1947, Serial No. 766,386. 7 Claims. (Cl. 62-116.)



1. In a low temperature refrigerating system, means including a thermally insulated wall for providing a chamber to be cooled, a first cooling element arranged to abstract heat from the medium within said chamber, a second cooling element arranged within said wall, means including a refrigerant compressing apparatus having a high pressure compressor and a low pressure compressor for supplying cooling fluid to said elements, and means for operating said low pressure compressor to abstract heat from said first element at a predetermined low temperature and said second compressor to abstract heat from said second element at a predetermined higher temperature.

2,479,733. LOW TEMPERATURE REFRIGERATING CONTROL THEREFOR. Wayne E. Dodson, Caldwell, N. J., assignor to General Electric Co., a corporation of New York. Application Aug. 5, 1947, Serial No. 766,387. 6 Claims. (Cl. 62-4.)



1. In a low temperature refrigerating system, means including a thermally insulated wall for providing a compartment to be cooled, a first cooling element arranged to abstract heat from the medium within said compartment, a second cooling element arranged within said wall, means including a refrigerant condensing apparatus for supplying cooling fluid to said elements, means responsive to the temperature within said wall adjacent said second element for admitting cooling fluid to said second element to maintain a predetermined temperature in said wall in the vicinity of said second element, and means dependent upon the reduction of the temperature in the vicinity of said second element substantially to said predetermined temperature for admitting cooling fluid to said first element whereby said first element is required to abstract heat from the medium within said compartment only after the temperature within said wall has been reduced substantially to said predetermined value.

2,479,773. REGISTER GRILLE. Charles T. Pehl, Batavia, N. Y. Application May 22, 1945, Serial No. 595,179. 1 Claim. (Cl. 98-110.)

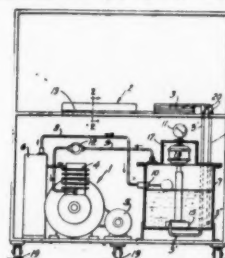


A register of the class described, comprising a rectangular frame embodying wide side and end channel bars having their open sides disposed downwardly, the inner legs of the channel bars being shorter than the outer legs thereof, groups of wide grille blades having downwardly extending ends, pivotally connected to the inner legs of the channel bars, pivot pins secured to the free ends of the downwardly extended ends of the blades and being extended outwardly into the channel spaces of the side channel bars below the lower edges of the inner legs of the channel bars, a horizontal operating bar connected with the pivot pins of the blades of each group of blades, an operating lever pivotally mounted within the channel bar space at one side of the frame, the channel bar in which the operating lever is mounted having an opening through which the lever extends, the lever being pivotally mounted at a point intermediate the ends of the channel bar, means for pivotally connecting one end of the horizontal operating bar of one group of blades to the operating lever at a point below the pivot of the operating lever, and a link pivotally connected to the operating bar of the opposite group of grille blades, said link being pivotally connected with the operating lever at a point above the pivot point thereof, whereby movement of the operating lever in one direction, simultaneously moves the groups of grille blades in opposite directions.

2,479,784. COLD APPLICATION. Edward Oneal Sears, Oakland, Calif., assignor to Colvin-Templeton, Inc., Oakland, Calif., a corporation of California. Appli-

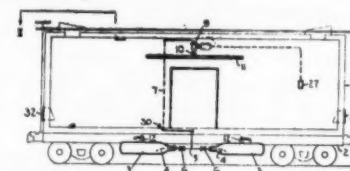
cation Jan. 12, 1945, Serial No. 572,543. 2 Claims. (Cl. 62-1.)

1. In combination, an evaporator tank for holding a body of liquid refrigerant therein, means for pumping liquid refrigerant from the bottom of the body through an applicator and back to the body, a compressor unit having a suction line connecting to the tank above said body for causing rapid evaporation of the refrigerant at the entire surface thereof and having a discharge line connecting to the tank substantially at the level of the refrigerant surface for returning liquid refrigerant, a float valve operable by the refrigerant for controlling the discharge line, and a pressure regulating valve in the suction line, whereby the temperature of the refrigerant in the applicator is directly subject to the control of the pressure regulating valve, and temperature changes are immediately transmitted through the entire body of the refrigerant.



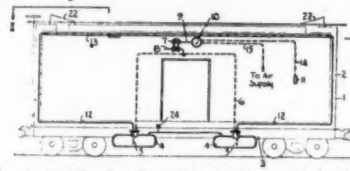
erant from the bottom of the body through an applicator and back to the body, a compressor unit having a suction line connecting to the tank above said body for causing rapid evaporation of the refrigerant at the entire surface thereof and having a discharge line connecting to the tank substantially at the level of the refrigerant surface for returning liquid refrigerant, a float valve operable by the refrigerant for controlling the discharge line, and a pressure regulating valve in the suction line, whereby the temperature of the refrigerant in the applicator is directly subject to the control of the pressure regulating valve, and temperature changes are immediately transmitted through the entire body of the refrigerant.

2,479,821. PROCESS AND APPARATUS FOR REFRIGERATION. Robert K. Deutsch, Chicago, Ill., Frithjof A. Larson, Bronxville, N. Y., and Vernon E. Middlebrook, Tulsa, Okla., assignors to Shell Development Co., San Francisco, Calif., a corporation of Delaware. Application March 30, 1946, Serial No. 658,492. 9 Claims. (Cl. 62-2.)



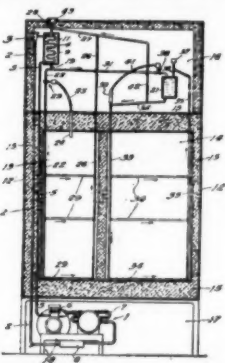
1. A process for refrigeration using liquid air comprising maintaining a superatmospheric pressure on the surface of liquid air in an insulated storage vessel, admitting liquid air in controlled amounts from said storage vessel onto an unconfined receptacle within the interior and near the top of a refrigerator compartment, and vaporizing the admitted liquid freely from said receptacle.

2,479,840. PROCESS AND APPARATUS FOR REFRIGERATION. Ava J. Johnson and Theodore W. Rosebaugh, Oakland, Calif., assignors to Shell Development Co., San Francisco, Calif.



1. A method of refrigeration comprising withdrawing liquid air from a container, at a temperature below the temperature of a heat insulated compartment to be refrigerated; conducting the liquid air to the interior of said heat insulated compartment within a confined flow passage-way extending substantially throughout the height of said heat insulated compartment, vaporizing the liquid air within said confined passageway by transferring heat to the liquid air therein from the wall of said heat insulated compartment, discharging the vaporized air from said confined passageway throughout the length of said compartment, controlling the amount of liquefied air discharged from said container by the temperature existing in said compartment and continuously removing air from the compartment.

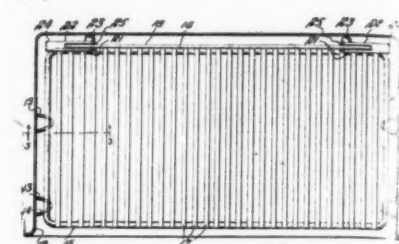
2,479,848. MULTITEMPERATURE REFRIGERATION APPARATUS AND METHOD. Charles Osborn Mackey and Gardner M. Rogers, Ithaca, N. Y., assignors to Orange-Crush Co., Chicago, Ill.



3. A refrigerating apparatus comprising a cabinet having a plurality of compartments therein to be refrigerated to different degrees; a primary refrigerating system including a compressor, a condenser and an evaporator; and a secondary refrigerating system including means for bringing a secondary refrigerant into heat exchange relation to said evaporator, means for circulating said secondary refrigerant through said compartments by thermosiphonic action resulting from changes of temperature thereof, thermally-controlled devices for regulating the admission of said secondary refrigerant to the different compartments and the refrigerating effect thereof, whereby each compartment may be maintained at a different temperature, and means for raising the temperature of a portion of said secondary refrigerant which is to be used for refrigerating a compartment to be maintained at relatively high temperature before admission thereof to said compartment, said last-mentioned means comprising a mixing chamber in which cold secondary refrigerant coming from the vicinity of said evaporator is mixed with relatively warm secondary refrigerant returned from said high-temperature compartment to raise the temperature of said cold refrigerant before it is admitted to the latter compartment.

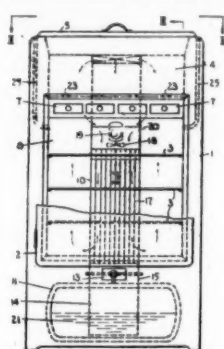
2,479,858. REFRIGERATOR SHELF. Carl H. Nauert, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a cor-

poration of Delaware. Application Sept. 1, 1945, Serial No. 614,062. 1 Claim. (Cl. 211-143.)



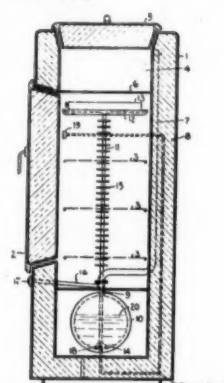
The combination of a refrigerator cabinet having side, rear, top and bottom walls, notched shelf supports positioned upon opposing side walls of the cabinet, a shelf adapted to rest in the notches of the shelf supports for movement relative thereto, a rear guard rail mounted upon the shelf, an integral shelf stop and bumper mechanism, and means adjustably mounting said shelf stop and bumper mechanism on the rear guard rail in such manner that the stop portion thereof contacts at least one of said supports when the shelf is moved forward of the cabinet, thereby preventing accidental removal of the shelf from the cabinet, and in such a manner that the bumper portion of said mechanism always contacts the rear wall of the cabinet when the shelf is moved to its rearmost position within the cabinet.

2,479,866. LIQUID AIR REFRIGERATION. Theodore W. Rosebaugh, Oakland, Calif., assignor to Shell Development Co., San Francisco, Calif., a corporation of Delaware. Application Dec. 7, 1945, Serial No. 633,362. 6 Claims. (Cl. 62-92.)



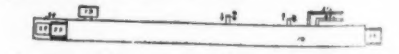
1. Apparatus for using liquid air as a refrigerant comprising a heat insulated refrigeration compartment, a highly insulated container for liquid air, a high heat conductor located in said compartment and extending into said liquid air container, and a vapor duct from said liquid air container passing in heat exchange with the wall of said refrigerator compartment along a substantial portion of the length thereof and terminating in the interior of said refrigerator compartment.

2,479,867. PROCESS AND APPARATUS FOR REFRIGERATION. Theodore W. Rosebaugh, Oakland, Calif., assignor to Shell Development Co., San Francisco, Calif., a corporation of Delaware. Application Jan. 7, 1946, Serial No. 639,582. 8 Claims. (Cl. 62-92.)



3. A process of refrigeration comprising supplying heat to liquid air near the bottom of an open, heat insulated container for the liquid air, conducting the bubbles of vapor generated through an eduction pipe whereby an amount of unvaporized liquid air is elevated and removed from the container, introducing the liquid air and vapor removed into the upper portion of a heat insulated compartment, effecting vaporization of the liquid air in said compartment whereby refrigeration of the contents of said compartment is effected and controlling the heat supplied to said liquid air in said insulated container by the temperature existing in said insulated compartment.

2,479,971. CONTINUOUS FREEZING UNIT. Albert K. Scriven, Baltimore, Md. Application Aug. 10, 1945, Serial No. 610,072. 3 Claims. (Cl. 62-104.)



1. A continuous cooling machine comprising, a housing, a plurality of carriers of flexible material of flanged form operating within the housing, drums for guiding the carriers in different planes and inducing an arcuate returning travel therein in an endless manner, said carriers being arranged whereby their flanged form will provide for a coordinated engagement with each of a predetermined travel distance, said engagement providing a boxed-in arrangement for packages to be inserted, carried and delivered therefrom in said distance, a primary coolant means mounted in the casing and adapted for the carriers to pass therethrough in surface contact therewith and to keep the carriers in said engagement and the casing against the packages in a continuous line, and means for lubricating the casing and carriers with a low temperature non-toxic fluid to facilitate the travel through said distance said carriers being arranged in pairs running in different planes whereby the flanges thereof will be opposite each other and contact along their flange edges to form a hollow rectangular structure for said distance and opening up to travel around their respective drums in arcuate V-like directions for travel outside of said distance.

(To Be Continued)

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TV External Equalizer (2)

WHAT PRESSURE DROP IS ACCEPTABLE?

What is a "negligible" pressure drop? The answer depends somewhat on the temperature of the evaporator. A 2 p.s.i. pressure drop is generally considered not excessive for evaporators operating at 25° or above. Anything above 1 p.s.i. should be considered excessive for evaporators from 0° down to -25°.

For ultra-low temperatures, -50° to -100°, 1/2 p.s.i. should be considered the maximum allowable pressure drop.

These figures, 2 p.s.i., 1 p.s.i., and 1/2 p.s.i. should include any line pressure drop; especially in case of the latter two—the low-temperature evaporators, for pressure drop is particularly to be avoided in the low-temperature applications.

"But," the reader may say, "if the external equalizer allows the valve to fully feed the coil, why worry?"

To answer that, let us go back to our 20° evaporator. Using the 1/2 in. tubing and with no pressure drop across the evaporator, and with no pressure drop in the suction line, the suction pressure would be 21 p.s.i.g. But with the 1/2 in. tubing the pressure drop across the evaporator was 5 p.s.i., so if there were no line pressure drop the suction pressure would be 16 p.s.i.g. (21 - 5) instead of 21 p.s.i.g.

WHAT PRESSURE DROP COSTS THE USER

The capacity of a condensing unit varies with the suction pressure. Under these conditions, a typical unit

would lose about one sixth of its capacity because it was forced to operate at 16 p.s.i.g. instead of 21 p.s.i.g.

This would cause the unit to run about one fifth more hours out of the day to carry the load, and thus the customer would pay about one fifth or 20% greater cost of operation. Worth saving! And just because the evaporator had too much pressure drop.

On low-temperature evaporators the effect is even more pronounced. If this evaporator were in a farm or home freezer, ice cream cabinet, or open-type frozen food display case, and we assume the evaporator to be about -15°, which with no pressure drop or even a pressure drop of less than 1 p.s.i., would result in a suction pressure of about 2 1/2 p.s.i.g. ("Freon-12").

If, however, the evaporator had a 5 p.s.i. pressure drop, the average suction pressure would be a 5 in. vacuum. What effect would this have on the condensing unit capacity, percentage of operating time, and cost of operation?

The capacity of a typical low-temperature condensing unit would be reduced about 30% from operating at 2 1/2 p.s.i.g. to a 5 in. vacuum.

A reduction in capacity of 30% would cause an increase in running time of about 43% and added cost of operation of about the same percentage. Almost one-half greater electric bill, just because of a 5-lb. pressure drop in the evaporator!

A 5-lb. pressure drop is not unusual. There are lots of installations operating every day with pressure drops of 5 p.s.i. or even more. Jobs are being installed almost every day with pressure drops across the evaporator of 5 p.s.i. or more, even low-temperature jobs. Then if the condensing unit is remote and someone skimps on the size of the suction

line, the pressure drop may be a good deal more. An external equalizer on the expansion valve may hide it but it does not cure it.

CHECKING FOR PRESSURE DROP

How can you recognize excessive pressure drop? The most positive way is to cut into the line from the outlet of the expansion valve to the evaporator and install a gauge, and compare the reading of that gauge with the suction pressure. (Be sure that both gauges are accurate, or at least are off the same amount.)

That method is not often practical. It takes too much time and costs too much. Another way, but not as accurate, is to clip an accurate thermometer to the evaporator at the outlet of the expansion valve. After you are sure that it is stabilized, look up its reading in the refrigerant table, for the corresponding pressure. Then compare that pressure with the reading of your suction pressure gauge.

A difference in their readings is the pressure drop, provided (1) the thermometer is accurate, (2) the suction pressure gauge is accurate. Do not take them for granted; they can be and probably are, off a degree or two or a pound or two, and their error can throw you off enough to make a lot of difference.

CORRECTING EXCESSIVE PRESSURE DROP

Suppose you find excessive pressure drop (over 2 lbs. at medium or higher temperature or 1 lb. at low temperature). What can you do about it?

Here are three things:

(1) Divide the evaporator into two or three parallel circuits with a thermostatic expansion valve on each circuit. This can often be done with plates. Seven or eight plates in series having a pressure drop of 4 p.s.i., split into two parallel circuits each with its separate expansion valve, can be reduced to a pressure drop of less than 1 p.s.i.

(2) Divide the evaporator coil into two or more parallel circuits fed by one expansion valve with a "multiport" outlet. Be careful of this one, it sounds easy but it can be quite difficult. It requires that each "pass" or circuit have the same separate pressure drop or one or two of the circuits will "hog" all the refrigerant, leaving the others almost inactive. Make sure that the capillary distributors to each pass are the same length and size; even more coils in one than another will affect their restrictive effect and the equal distribution of the refrigerant. You will probably have to use an external equalizer for the expansion valve also, to prevent erratic operation and starving the coil.

(3) The use of headers. Divide the one circuit into two or more circuits and put a header on both the inlets and the outlets. If the passes and headers are carefully designed, one expansion valve can feed the inlet leader, and the suction line can be taken off the suction header. This method is not easy, and should be used more or less as a last resort.

SUMMARY

An external equalizer is not a cure-all. It merely helps the thermo-

static expansion valve operate effectively and feed the evaporator fully. It does not cure the loss of capacity of the condensing unit, nor increased running time, nor added cost of operation.

If excessive pressure drop exists, give some thought toward correcting it, more than merely using an external equalizer on the thermostatic expansion valve.

Brown's Electrical City Holds Employe Open House

ELMIRA, N. Y.—Brown's Electrical City, 229 W. Water St., appliance dealer, staged an open house program for the 750 employees and pensioners of the Elmira Works, General Electric Co., and their families.

The open house began following the annual Christmas balloon parade and was conducted to familiarize the employees with the finished products of General Electric, for which Brown's Electrical City is a local dealer.

Special displays of appliances were set up in the store and light refreshments were served.

Proctor Advertising In New Haven Tests Ironing Table Market

NEW YORK CITY—To determine the quantity of ironing table business which can be developed for electrical housewares retailers through local newspaper advertising, the Proctor Electric Co. is conducting a one-month promotional activity in New Haven, Conn., in cooperation with the Plymouth Electric Supply Co.

A series of factory paid advertisements in local newspapers is carrying the message of the new Proctor Hi-Lo Ironing Table throughout the city.

The table which was introduced to the trade at the Atlantic City Housewares Show is adjustable to nine different heights by means of the press of a finger.

List price of the Proctor Hi-Lo Ironing Table is \$12.95.

Nema Section Announces Water Heater Campaign

NEW YORK CITY—Again in 1950, comprehensive campaigns at the trade level will be conducted by the Electric Water Heater Section of Nema. This decision was made by the section during the annual meeting of the National Electrical Manufacturers Association at Chalfonte-Haddon Hall in Atlantic City, and is announced by H. J. Holbrook, director of the Electric Range and Water Heater division, Norge Div., Borg-Warner Corp., the newly elected section chairman.

The campaign will match or even better the successful program carried out this year. The fields to be covered include: architects and builders; plumbing contractors, electric appliance distributors, and dealers.

In the building field, testimonials from actual builders, based upon their experience in the way electric water heaters help sell homes, will be featured in the advertisements, with emphasis on the fact that it is easy to install an electric water heater in a house wired for an electric range.

The campaign to plumbing contractors points up in "stopper" fashion the facts that informed people want electric water heaters and that the electric water heater is a highly desirable appliance for plumbers to promote, sell, and install.

Electrical dealers and distributors are to be reminded that the constantly increasing sales of hot water using appliances, such as electric clothes washers and dishwashers, create new and larger prospect lists for completely automatic hot water service as supplied by electric water heaters.

Hamilton Mfg. Co. Produces 100,000th Clothes Drier

TWO RIVERS, Wis.—In a ceremony at its plant here recently, the Hamilton Mfg. Co. celebrated the production of its 100,000th automatic clothes drier.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

CAN YOU use 20 years' diversified experience refrigeration-air conditioning? Thorough knowledge major equipments, accessories and their applications. Also sales organization and supervision. Background suits for distributors, manager-jobber's assistant or factory representative. Now Philadelphia but location unimportant. BOX 3369, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

OPPORTUNITY FOR successful salesman. If you are now making more than \$5,000.00 per year and have a desire to improve your earnings, join the progressive, hard-hitting sales force of the York distributor for Northern New Jersey, ELECTRIC PRODUCTS, INC. Send resume to us at 106 Nelson Avenue, Jersey City 7, New Jersey.

MANUFACTURER'S REPRESENTATIVE wanted Virginia, North Carolina area. To establish dealers and distributors to handle the Federal complete line of refrigerated store fixtures. Latest design self-service models for every use. Give qualifications, references and other lines handled in reply. FEDERAL REFRIGERATOR MFG. CO., P. O. Box 465, Waukesha, Wisconsin.

SALES ENGINEER—Must have engineering experience in household refrigeration. Prefer man 30 to 35 years of age. Interesting position is offered by well-known manufacturer of major refrigerator components. Reply BOX 3359, Air Conditioning & Refrigeration News.

WANTED—EXPERIENCED commercial refrigerator salesman capable of appointing and training dealer organizations in Mid-West. Large established manufacturer with complete line. Our organization knows of this ad. Write BOX 3365, Air Conditioning & Refrigeration News, giving complete details as to qualifications.

NATIONALLY KNOWN manufacturer of commercial refrigerated equipment (display cases, walk-in's etc.) has several openings for factory representatives. Must be able to prove ability and provide references. This is one of the most complete lines, and oldest firms in the industry. BOX 3370, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

WHOLESALE SEALED unit exchange and rebuilding. We will rebuild and

convert your unit to "Freon-12." One year guarantee. Write for price list and shipping instructions. ADVANCE REFRIGERATION COMPANY, 829 East McNichols Road, Detroit 3, Michigan.

COMPRESSOR, 60 ton evaporative cooled type. Used on air conditioning application but in good condition. Bargain! \$2,000.00 F.O.B. Cincinnati. BIMEI CO., Cincinnati, Ohio.

BUSINESS OPPORTUNITIES

WHOLESALE REFRIG. repair in Mich. Completely equipped plant, good stock of compressors and parts, late model trucks. Gross over \$30,000 can easily be doubled by proper management. Will sell for inventory approx. \$6,000, due to other interests. BOX 3371, Air Conditioning & Refrigeration News.

REFRIGERATION, RADIO, appliance sales and service in small central California town. Centrally located, three-year lease. \$9,000.00 handles entire set-up including 4 room house on two lots, panel truck, car tools and equipment. Or will sell stock and fixtures separately. Address BOX 3372, Air Conditioning & Refrigeration News.

SCHOOLS

DETROIT AIR Conditioning Institute is accepting applications for enrollment in spring term classes starting January 31, 1950. Fully GI approved courses in air conditioning, refrigeration, heating, ventilating, sheet metal layout, heat pump engineering. Write for free information. DETROIT AIR CONDITIONING INSTITUTE, Dept. D, 4125 Grand River, Detroit 8, Michigan.

MISCELLANEOUS

NORGE SEALED units remanufactured and exchanged. Immediate delivery from stock, 1 year guarantee. Write for prices and shipping instructions. Complete Norge engineering service. 22 years experience. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 5, Michigan.

PROFIT-MAKING OPPORTUNITY

A large manufacturer of a nationally known home appliance having an average sales price \$170.00, yielding average return \$165.00, with investment of less than \$1000.00 (inventory assistance available), will make selection of an exclusive merchandiser for cities over 25,000, and surrounding trading area. Interested applicants write for interview, giving full particulars.

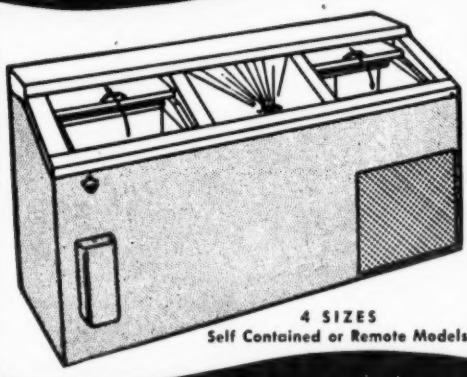
The Fensholt Advertising Agency
360 N. Michigan Avenue
Chicago 1, Illinois

NATIONAL DRY BEVERAGE COOLERS

Nationally famous NATIONAL CHAMPIONS incorporate all the fine features you look for in a cooler. Be rational... buy National!



NATIONAL COOLER CORPORATION • 1600 Woodland Ave. • Cleveland 15, Ohio



4 SIZES
Self Contained or Remote Models

Write for 1949 Catalog



feelin' fresh as a daisy!

... and kept that way with Ranco "All-Weather" Type O-1559 Controls

Completely automatic defrosting—regardless of weather, load conditions or cold location of the compressor — helps maintain uniform relative humidity with Ranco "All-Weather" Type O-1559 Controls. Adaptable to either natural or forced convection units in walk-in coolers, display cases, florist boxes and similar temperature range fixtures. They keep food and flowers fresher... provide better protection from shrinkage and spoilage.

Ask your Ranco wholesaler to show you the complete line of Ranco Controls — found in more original installations than any other control.



Replace it right with Ranco
Ranco Inc.
COLUMBUS 1, OHIO

World's Largest Manufacturers of Refrigeration Controls... more than 20,000,000 controls now in use

ASRE Told Water Supply Is Critical--

(Concluded from Page 1, Column 5)
B. Christensen of Merchants Refrigerating Co., vice president; Edward Simons, consulting engineer, vice president; Dr. R. C. Jordan of the University of Minnesota, treasurer, and the following directors:

Frank H. Faust of the General Electric air conditioning department; Arthur J. Hess of Hess, Greiner & Pollard; George K. Iwashita of G-E; Rowland H. Lock of J. H. Lock & Sons, and Herman F. Spoehrer of Sporlan Valve Co.

Approval of several proposed amendments to the ASRE constitution was also announced at the Chicago meeting. Chief among these was that establishing one third of the "current council membership" as a quorum for the transaction of business. Previously only seven members constituted a quorum, although council membership had been increased to more than 50.

Another change in the constitution sets up identical requirements as to the qualifications of the college for "student" and "junior" members. In classifications the applicant must be attending, or be a graduate of "an engineering school approved by the Engineers' Council for Professional Development, the Engineering Institute of Canada, or by the council upon the recommendation of the education committee."

CONFERENCES DRAW CROWDS

The three "conference" type sessions—on domestic refrigerators, room air conditioners, and water supply and water re-use—were highly successful. They all drew large crowds, and the domestic refrigerator session drew many from the plastics field, the room air conditioner conference brought in some company and city inspection personnel, and the water supply conference drew some interested listeners from the water utility field.

Those attending the room air conditioner conference voted unanimously for the continuation of a session on room air conditioners at least once a year.

Selection of Kansas City, Mo. for the spring meeting of the society next year was also announced during the Chicago convention. This will be held at the Muehlebach hotel June 5 to 7, 1950.

Announcement and presentation of awards for the best technical papers were made by D. D. Wile, chairman of the awards committee.

The late Ralph M. Buffington of Servel, Inc., was posthumously credited with the best paper to be presented before a local section for his discussion of "Qualitative Requirements for Absorbent-Refrigerant Combinations." On behalf of Mrs. Buffington, Dr. R. S. Taylor received the award at the meeting.

Milo M. Bolstad and Richard C. Jordan of the University of Minnesota won the Wolverine award for the best paper published in the society's journal. Their paper covered "Theory and Use of the Capillary Tube Expansion Device."

ASA B9 CODE CHANGE WILL BE READY BY SUMMER

It was learned also at the ASRE meeting that the current status of the latest proposed revision of the ASA B9 Safety Code of Mechanical Refrigeration probably won't be ready for adoption until next summer.

Dr. W. R. Hainsworth, chairman of the committee, told the society that the seventh in the current revisions is being submitted to sectional committee this month.

"We hope to present it to ASRE for adoption at the spring meeting in 1950, after which it will go to the American Standards Association for adoption," he explained.

The revised code may be ready for publication by the latter part of April or early in May of next year, he said.

In the four regular technical sessions, a fairly wide variety of subjects were covered in the 13 papers. The fourth session was devoted entirely to the problem of moisture in refrigerating systems, and included an outline of the proposed program of study for the ASRE committee on dessicants presented by Dr. Walter O. Walker of Ansl Chemical Co.

Starting of such a program brought forth considerable praise, and Herman Spoehrer observed, "there has been too much mud-sling-



JOHN G. BERGDOLL
Elected president of A.S.R.E.

ing and releasing of incomplete data by manufacturers; the time has come for manufacturers of dessicants and driers to stop tearing each other apart."

A "multiplicity of problems" will be involved in this research, warned Dr. Walker, who also cautioned the industry not to expect results "in the next two or three months."

For the present at least the research program will be confined to commonly used dessicants, he said, including Activated Alumina, Ducal Drierite, Drierite, PA100 Silica Gel, Sova-Bead, and Sporlan Catch-All. The dessicants will be studied with "Freon-12" and methyl chloride, using the phosphorous pentoxide method only.

First studies will be limited to such factors as efficiency, capacity, and rate of action, he indicated.

Before Dr. Walker's presentation, those attending the fourth technical session had heard T. W. Duncan of Seeger discuss "Moisture Determination in Refrigeration Units" and Dr. W. A. Pennington of Carrier Corp. point out certain faults to be found with common methods of "Refrigerant Sampling" in tests involving moisture.

ENZYME GROWTH STUDIED

Broad new vistas in research on the preservation of foods were opened at another technical session when Prof. B. E. Proctor of the Massachusetts Institute of Technology described a process that inhibits bacterial growth without stopping enzymatic activity.

Controlled exposure of foods to super-voltage cathode rays produced by a machine operating at 3,000,000 volts "sterilizes" or kills the bacteria, but does not affect the enzymes, thus permitting their part in food spoilage to be studied independently. Prof. Proctor indicated in discussing the paper.

The paper which he, J. T. R. Nickerson and S. A. Goldblith had prepared, primarily dealt with "Effects of Refrigerated Storage at Various Temperatures on the Chemical and Bacterial Content of Haddock."

Prime purpose of the super cathode ray machine, he said, is for cancer research.

Details of this and other technical papers will be published in future issues of the NEWS.

Penn Electric Switch Elects 2 Vice Presidents

GOSHEN, Ind.—Ralph S. Penn and E. B. Maire have been elected vice presidents of Penn Electric Switch Co., Albert Penn, president announced recently.

Ralph S. Penn has been active in the company since 1937 and has served as manager of several of the company's district offices. After three years' service in the U. S. Naval Reserve, he returned to the main office at Goshen where he has been manager of the special products division.

E. B. Maire has been active in the control industry for the past 15 years. He joined the Penn company in 1934 and for several years managed the company's district office in Chicago. He returns to Penn after three and one-half years in other phases of the control industry and will make his headquarters at the main office and factory in Goshen.

Mueller Names Dappert General Sales Manager

PORT HURON, Mich.—Appointment of Alfred C. Dappert as general sales manager has been announced by Mueller Brass Co. here.

Dappert has been associated with Mueller for more than 25 years. Beginning as sales representative in the central states area, he later served as manager of the district sales office in Chicago. This year he became divisional sales manager.

Dept. Store Sales Up In Boston Area Only

WASHINGTON, D. C.—Only in the Boston Federal Reserve district did department store dollar sales for the week ending Nov. 26 show an increase over the corresponding week last year, the Federal Reserve Board reported recently.

Boston district sales were up 2% for that week while the national average was off 5%, it was reported. All other districts reported losses except the Atlanta district, where sales were even with the 1948 week.

Declines in the other districts ranged from 2% in the New York, Philadelphia, and Richmond districts to 10% in the San Francisco district. Sales were off 3% in the Minneapolis district, 6% in Dallas, and 7% in Cleveland, Chicago, St. Louis, and Kansas City.

Sales for the four weeks ending Nov. 26 and for the year to that date were down 6% from last year.

Fire Razes Sunroc Plant--

(Concluded from Page 1, Column 3)
worth of property, tools, equipment, and partially assembled products in the four-story 73-year-old structure.

He announced the next day, however, that his 350 employees will not face a workless Christmas season. A makeshift assembly line was set up at once in adjacent buildings, he said, and production started up again within a few hours.

The blaze was discovered by a night watchman at 2:15 a.m., who immediately called for aid from two local volunteer fire departments. The chiefs of these departments recognized instantly that the fire was beyond their control and sounded a general alarm that drew eight more departments to the scene.

The 200 firemen were unable to make any headway against the blazing main building and soon switched their efforts to wetting down nearby warehouses that contained an estimated \$100,000 inventory of Sunroc products.

At 3:15 a.m., just an hour after the first alarm was sounded, the roof collapsed and crashed through the three upper floors to the ground, carrying production equipment with it.

The firemen told Morrison that the building was a complete loss as the walls were damaged beyond repair.

The cause of the blaze had not been determined late last week.

Only a few hours after the fire gutted the main plant, workmen were busy arranging a production line in several small buildings and sheds. An old school building that Sunroc

had been using as a service school, was transformed into a temporary sales office.

This fire is the second in 13 months for Sunroc. On Nov. 2 last year, a blaze in one of the company's warehouses destroyed \$250,000 worth of property.

Defeat Fresno Proposal To License Refrigeration Equipment Operators

FRESNO, Calif.—Members of the Refrigeration Contractors Association of Northern California joined with the Merchants Association and others to defeat a proposed local ordinance which would have required the licensing of operators of boilers, refrigeration, and similar equipment.

The proposed measure had been introduced by one of the City Commissioners on behalf of the Stationary Engineers' union. Opponents of the measure charged that it was a "featherbedding" and "make work" plan, and an attempt to dictate to employers.

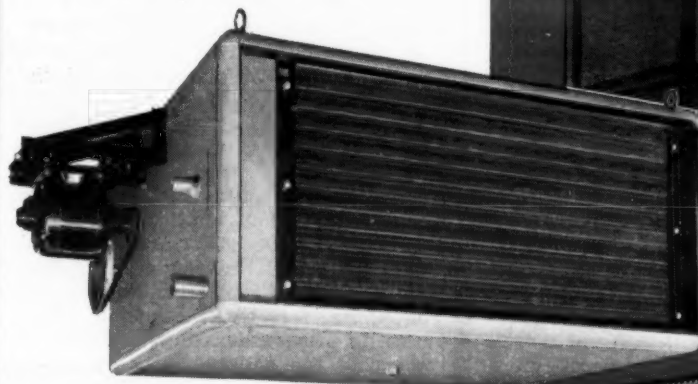
Opponents argued that in requiring an examining board to certify those who would be permitted to operate such equipment, the ordinance in effect would require employment of a stationary engineer to run automatic equipment.

Toronto Store Opens

TORONTO, Ont., Can.—Consumers Electric has opened a new store at 1042 Bloor St., W., one block away from its old location, featuring a complete line of appliances.

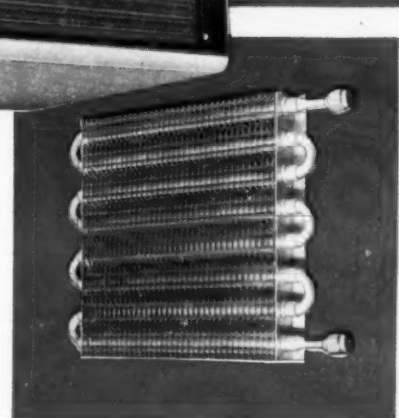
We've put your profits in COLD STORAGE

1 BUSH HEAVY DUTY FLOOR TYPE COOLER is built in two sections for quick, easy installation. Available in capacities of 24,000-96,000 BTU/HR at 10° TD above 32° and 24,000-90,000 BTU/HR at 10° TD below 32°.



2 BUSH HEAVY DUTY CEILING TYPE COOLER

is the last word in scientific design and efficient operation. Easy to install . . . readily accessible for service. Available in capacities of 24,000-48,000 BTU/HR at 10° TD above 32°.

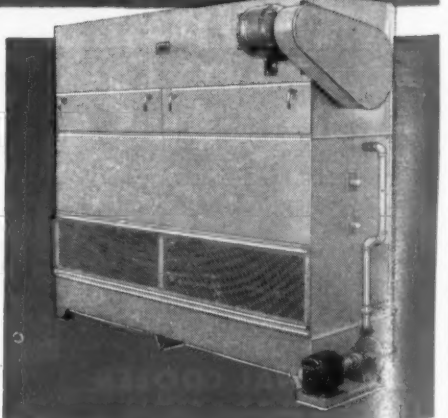


3 BUSH FIN COILS

are supplied in various models, lengths and fin spacings. Aluminum fins on tinned copper tubes. Also steel galvanized for ammonia.

4 BUSH EVAPORATIVE CONDENSERS

are supplied in capacities of 5-40 tons . . . with continuous tubing . . . centrifugal pumps . . . fibreglass eliminator sections (20-40 tons).



BUSH Cold Storage Units produce more profit for you because their expert design and engineering, their top quality materials fabricated to rigid specifications, their careful testing and accurate rating mean easier selling, faster installation and less service . . . more customer satisfaction. Get acquainted with the BUSH Factory Representative in your territory . . . a good man to know.

Buy the Best—and the Best is Bush

BUSH MANUFACTURING CO. • WEST HARTFORD 10, CONN.

